

Sage Intergy

Sage Intergy 7.00 Installation Manual



sage



Sage Intergy 7.00 Installation Manual Reference

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Introduction

This document is intended for use by Sage field engineers, software installation specialists, and other technicians who may be tasked with the installation and maintenance of the Sage Intergy 7.00 product.

Configuration of application functions and use of the Sage Intergy client desktop are topics that are not covered in this manual. Please refer to the appropriate customer-facing user guide or training materials for this type of information.

How to use this document

Detailed installation instructions for all aspects of the Sage Intergy application are organized into logical chapters and appendices. The contents and instructions in these chapters is described below.

General Installation of Sage Intergy

Chapters one through nine describe the installation and configuration of application components which are required for correct operation of Sage Intergy in all environments. Most installations will begin with the content in chapter one, which covers the installation and configuration of the operating system.

Chapter 10 describes the Dump and Load defragmentation process, which is used to optimize a Sage Intergy database and improve performance. For version 6.00 and higher, the Type II database is introduced as a new default standard for installation. Sage technicians who are upgrading an existing Sage Intergy customer site to version 7.00 from version 5.50 or lower should review this chapter and apply the Type II database before or during the upgrade process.

Chapter 11 describes the implementation of system printers and the Remote Print Service for a Sage Intergy customer site. In order to support many different types of paper output, not all printing configuration options are configured from the operating system. Review this chapter carefully for instructions on configuration of printing for both new installs and upgrades.

Advanced Installation Topics

Appendices A through E describe operational tasks which may be used as part of a standard installation of Sage Intergy. Many technicians will use the information in these appendices to complete installation of third-party software, perform common Sage Intergy technical processes, and upgrade an existing Sage Intergy environment. Technicians will most likely refer to these appendices as needed while using the main portion of the document.

Appendix F describes advanced configuration of the Sage Intergy product to support specialized installations of multiple databases. These types of installations are uncommon and should be performed only by experienced technicians who are already familiar with the normal installation procedure. Technicians who are responsible for these types of installations should begin by reviewing the content in Appendix F, as this content amends or modifies the standard installation procedure.

Appendix G describes the installation of the Cardio Sage Intergy service, which supports the operation of the Heart Centrix monitor. This is a third-party product that provides cardiology data for patient records.

Appendix H describes the installation of the Physician Portal service, which allows Sage customers to process referrals automatically. For version 7.00, this service requires several manual installation steps.

Installation Procedures

Most chapters in this document begin with a table that lists typical installation settings used for each specific installation process. This table is followed by a series of sequential work actions. For ease of reference, these actions are divided into individual tasks with numbered steps. Most chapters will end with a section called Next Steps, which describes the work actions that must occur next.

Chapter 1: Operating System Infrastructure

A typical Sage Intergy installation is a turnkey solution, meaning that all installed software and hardware is purchased from Sage as a packaged solution. For this reason, it will ordinarily be necessary for the installing technician to set up basic operating system and network infrastructure components. At sites with an existing computing environment already in place, it may instead be necessary for the responsible technician to incorporate the Sage Intergy installation into an established network.

This chapter includes references to several external information sources, including vendor website links and other Sage Intergy documentation. The installing technician is expected to be familiar with the details of operating system installation for all compatible Windows platforms. Refer to the Sage Intergy 7.00 System Requirements document for more information on compatible operating systems..

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Typical Installation Settings

The following table lists typical operating system settings used for Sage Intergy in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Sage Intergy Server Operating System	Computer Name	'IntergyServer' is typical setting IntergyDatabase01, IntergyDatabase02, IntergyApplication01, IntergyApplication02, etc used in environments with multiple servers
	Windows License Mode (Windows Server 2003 only)	Per Device or Per User
	Network Settings in existing network environment	Static IP recommended DHCP acceptable
	Network Settings for new computing environment	Set up Sage Intergy database server as DNS and DHCP server 192.168.1.10 for local IP and as preferred DNS server
	Security Configuration	Windows Firewall - Off for all profiles Internet Explorer Enhanced Security Configuration - Off for both Users and Administrators
	Other Settings	Set time and date Install Windows service pack, service patches and hotfixes Use disk drive layout from System Requirements document Set Windows Update to Automatic Update but Manual Installation Install F1 Field Help Fix
Windows Terminal Server Settings	Windows Server 2008	Select Terminal Server role Select Terminal Server licensing Windows Component Select per-device licensing mode for typical installation
	Windows Server 2003	Select Terminal Server Windows Component Select Terminal Server licensing Windows Component Select per-device licensing mode for typical installation

Application Component	Configuration Item	Value or Setting
Sage Intergy Client Installation for Terminal Services	Temporary Directory Prompt	T: in a typical installation, or available drive letter in customer environment
Windows Local Security Policy	Password Must Meet Complexity Requirements	Enabled
Windows Sage Intergy Support User	User Name	Support
	Full Name	Support
	Description	Sage Intergy Support User
	Password	Int<license code>
	Group Membership	Users, Administrators
	User Cannot Change Password	Select checkbox
	Password Never Expires	Select checkbox
Windows Sage Intergy Service Account	User Name	IntergyService
	Full Name	IntergyService
	Description	Sage Intergy Service Account
	Password	Int<license code>
	Group Membership	Users, Administrators
	User Cannot Change Password	Select checkbox
	Password Never Expires	Select checkbox
Windows Paging File Configuration	Paging File Drive and Size	Use default Windows-managed settings only for all database servers.

Drive letters and directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these operating system components are provided in the following pages.

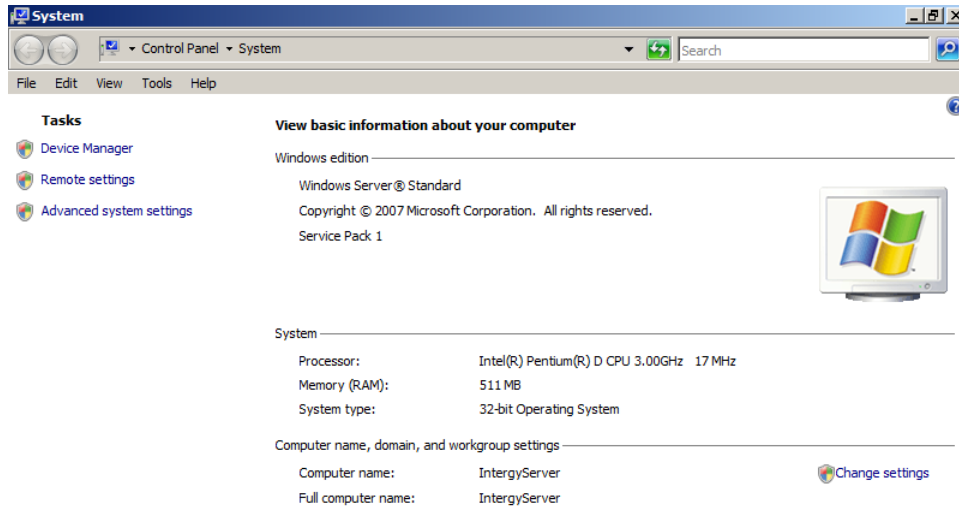
Base Windows Settings for All Sage Intergy Servers

All Windows servers in a Sage Intergy environment should be configured to use these base operating system settings before installing Sage Intergy application components. These settings may be configured during or after Windows installation. Exceptions are noted as appropriate.

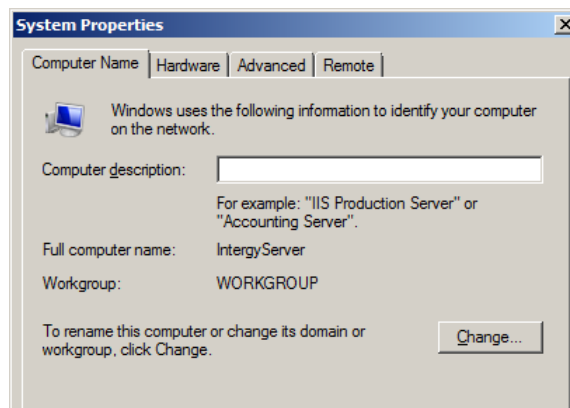
Computer Name

The Computer Name is set from the System Properties control panel.

1. To access the System control panel, right-click on the Computer item in the Start menu and selecting the Properties menu item.



2. Click on the Change Settings link at the right side of the System configuration browser window to open the System Properties control panel.



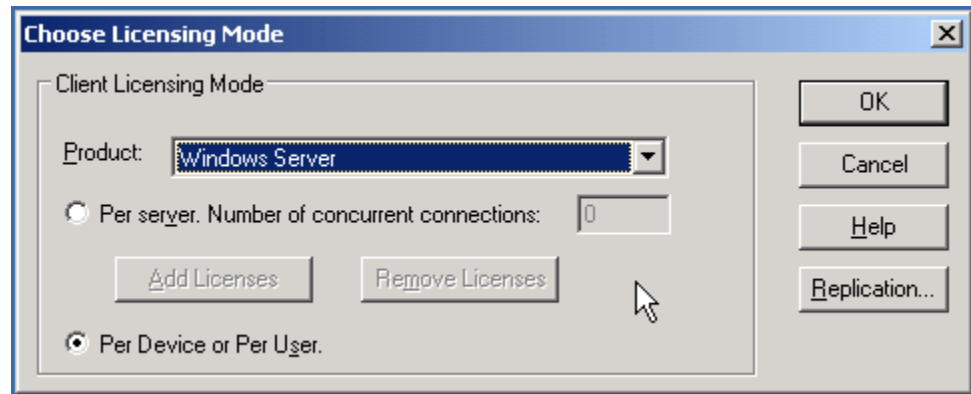
3. Click on the Change button to change the name of the server. Depending on the circumstances, the following names are acceptable in most environments:
 - Intergyserver
 - IntergyDatabase01, 02, etc
 - IntergyApplication01, 02, etc

License Mode

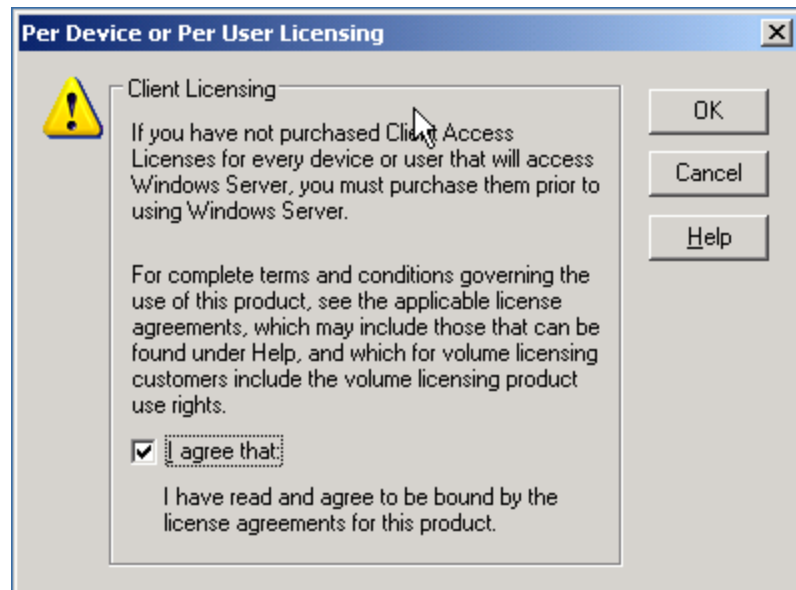
For Windows 2003 only, configure the CAL license mode for per seat licensing.

1. Open the Licensing item in the Control Panel.

2. The Licensing Mode window will be displayed. Select the 'Per Device or Per User' radio button and click on OK to confirm the change.



3. If this is a new setting, the Client Licensing confirmation window will be displayed. Click in the 'I agree' checkbox to confirm that you will comply with the new licensing terms, and then click on the OK button to proceed with the change.

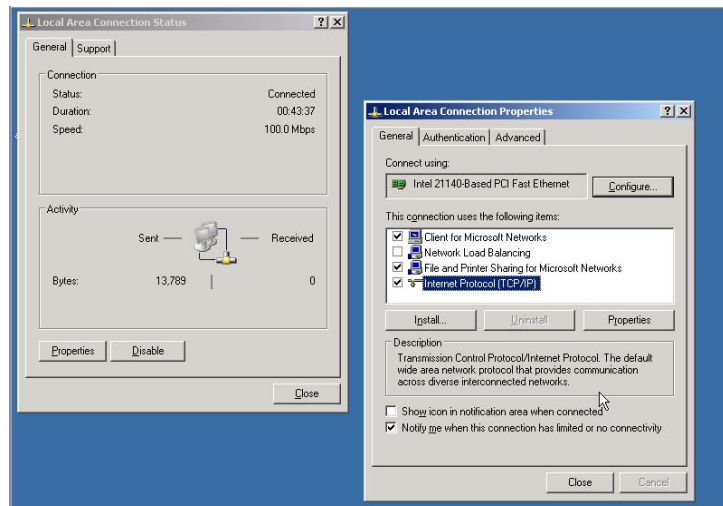


Network settings

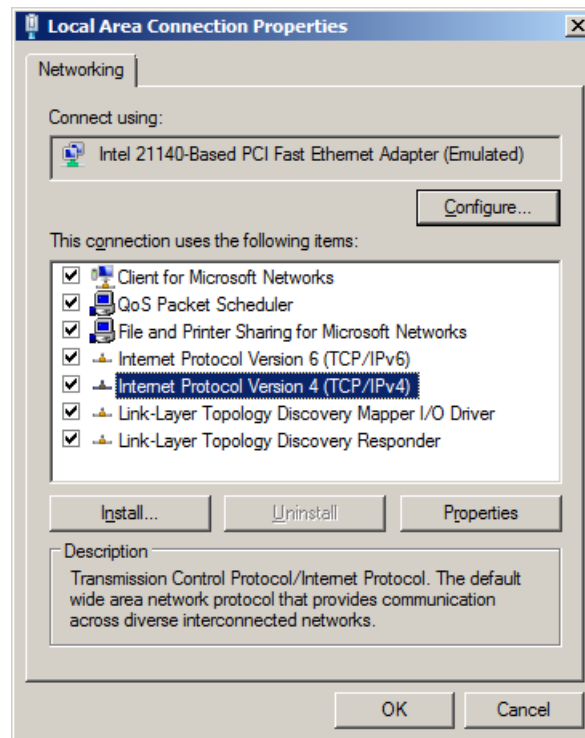
Configure TCP/IP for the server.

1. Select the appropriate 'Local Area Connection' item from the Network Connections section of the Control Panel. The server you are configuring may have multiple network connections, so make sure you click on the correct one.

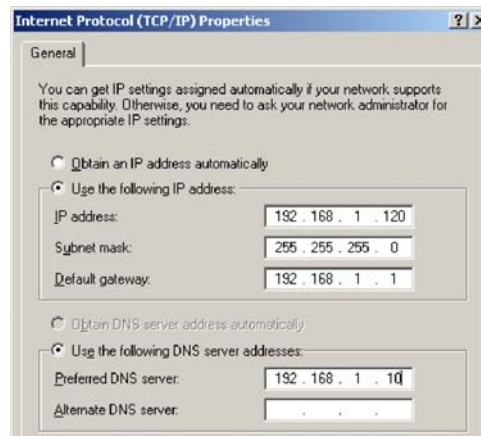
2. In Windows Server 2003, click on the Properties button to display the Local Area Connection Properties window. In the new window, select the Internet Protocol (TCP/IP) item and click on the Properties button to display the TCP/IP settings.



In Windows Server 2008, right-click on the Local Area Connection icon and select the Properties menu item to display the Local Area Connection Properties window. In the new window, select the Internet Protocol Version 4 (TCP/IP V4) item and click on the Properties button to display the TCP/IP settings.



3. The Internet Protocol Properties window is displayed.



For Sage Intergy 7.00, it is acceptable to use automatic setting to have an address assigned by an external DHCP server. However, if the Sage Intergy server is also a domain controller, or if the Sage Intergy Storage Server will be installed, then a static IP address or a DHCP reservation is strongly recommended. In the case of a static IP address, use the following settings in a typical environment:

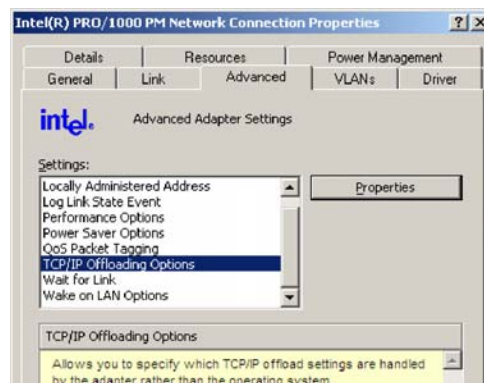
- Subnet mask: 255.255.255.0
- Default gateway: 192.168.1.1
- Preferred DNS Server: 192.168.1.10

In a typical environment, use static addresses in the range between 192.168.1.10 and 192.168.1.30 for all server devices. Using these typical settings assumes that 192.168.1.1 is the address assigned to the network router, and that the Sage Intergy database server is also the primary DNS and DHCP server. However, change the static address ranges used to match the addresses that are allocated for use in the customer's computing environment as necessary.

4. Configure TCP/IP Offload so that it is disabled on all Sage Intergy servers. If the TCP/IP Offload function is enabled in any version of Windows, Sage Intergy client connections may be disrupted during normal operation. To disable TCP/IP Offload for Windows Server 2008, type the following text at the command prompt:

```
netsh int tcp set global chimney=disabled
```

Technicians must also disable this functionality for each individual network driver. Although hardware vendors may provide different configuration mechanisms, in general TCP/IP Offload is configured from the Device Management portion of the Server Manager interface. Refer to the vendor documentation for your network interface if necessary.

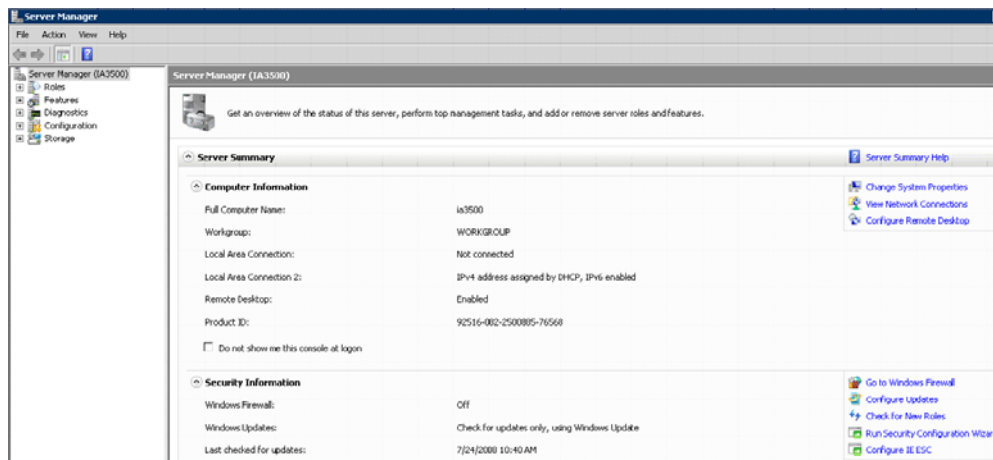


For detailed information on configuration of TCP/IP Offload for Windows Server 2008, refer to the Microsoft Knowledge Base entry at <http://support.microsoft.com/kb/951037>. For detailed information on configuration of TCP/IP Offload for older versions of Windows, refer to the article at <http://support.microsoft.com/kb/948496> instead.

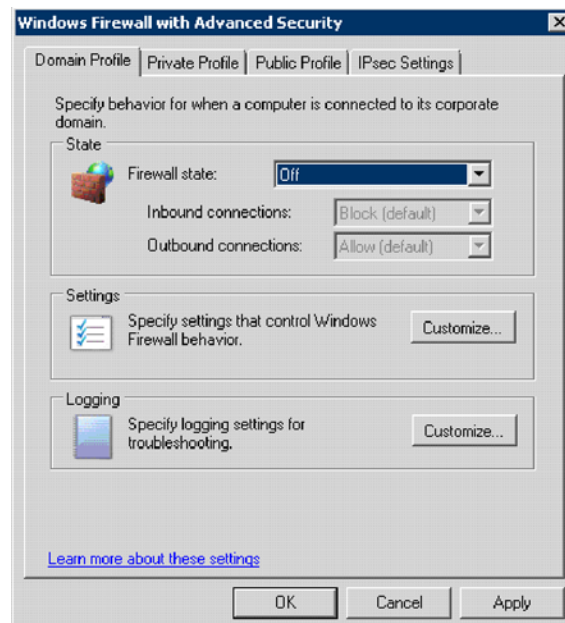
Security Configuration

Configuration of Sage Intergy database server security makes use of the Server Manager interface of Windows Server 2008. For detailed information on the use of the Server Manager window, refer to the Microsoft Technet reference at <http://technet.microsoft.com/en-us/library/cc732131.aspx>

1. Log on to the Sage Intergy database server using the local Administrator account. From the Start menu, open the Administrative Tools menu and select the Server Manager menu item. Note that the main Server Manager Server Summary is displayed.



2. Click on the Go To Windows Firewall link on the right side to display the Windows Firewall with Advanced Security settings in the Server Manager window. Click on the Properties item in the far right pane to display the Windows Firewall Properties window.



3. Note the Domain Profile, Private Profile and Public Profile tabs in the Windows Firewall Properties window. On all three tabs, select the 'Off' item from the drop-down list in the Firewall State field. Click on the OK button to close the Windows Firewall Properties window and return to the Server Manager window.
4. At the Server Manager window, click on the Server Manager item in the left pane to return to the Server Summary screen. Click on the 'Configure IE ESC' link on the right side to display the Internet Explorer Enhanced Security Configuration window.



5. For both the Administrator and User items, select the 'Off' radio button as shown. Click on the OK button to close the IE ESC window and return to the Server Manager window.

Other Settings

Other base operating systems settings to check before proceeding are:

- Correct time and date
- The most recent version of the Windows service pack, security patches and hotfixes are installed
- Correct disk drive layout - Refer to the Sage Intergy System Requirements document for information on what drive layout is suitable for the size of the environment.
- Automatic Windows Updates disabled - To maintain full compatibility with tested releases of Sage Intergy 7.00, Automatic Windows Updates should be downloaded, but should not be automatically applied on any Sage Intergy servers and workstations.

Configuring Windows Servers Before Installing Sage Intergy

This section covers installation of Sage Intergy in customer sites which do not already have computer equipment installed. Sage Intergy is supported for new installation on Windows 2008 Server. Refer to the Sage Intergy 7.00 System Requirements document for detailed information on supported operating systems, hardware and storage requirements.

A Sage Intergy 7.00 environment should be installed in an environment that has a domain controller. When network infrastructure functions are provided by existing computing environment equipment, Sage Intergy servers may be joined to an existing domain. Otherwise, the Sage Intergy database server should be installed as the domain controller with the 'Intergy' domain name.

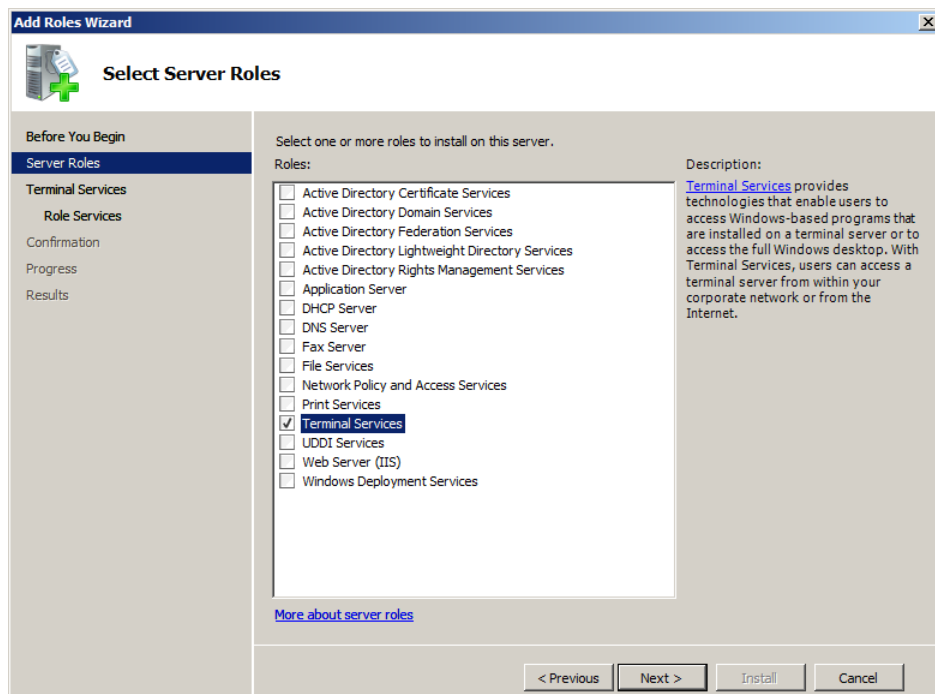
These instructions assume configuration is being performed on a server which is already pre-loaded with Windows 2008 Standard Server. Some configuration options may also be set during operating system installation. Refer to the server manufacturer's documentation if you are required to install the operating system, as it is possible you may be required to use an OEM distribution of Windows with specialized drivers. Please also refer to the Microsoft Techcenter documentation for installation of Windows 2008 Server at the following URL:

<http://technet.microsoft.com/en-us/windowsserver/2008/cc339386.aspx>

All new Windows server configuration actions assume that you are logged on as the local administrator. All network configuration options assume the use of the '192.168.1' subnet in the local area network.

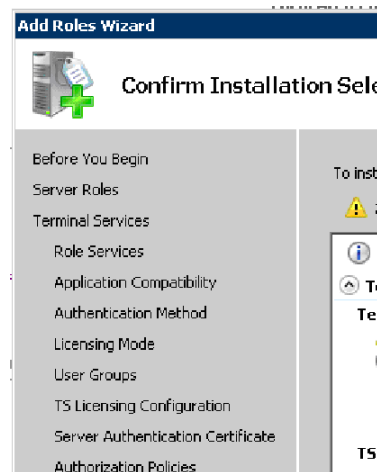
Terminal Server Installation Options

1. The Initial Configuration Tasks window will be displayed after installation of the operating system has completed. Under the Customize this Server heading, click on the Add Roles link in the browser window to display Add Roles Wizard.



2. Fill in the checkbox for the Terminal Services option. Click on the Next button to proceed to the steps that must be completed to gather computing environment information.

- Note that the left pane is expanded to include additional steps that are necessary as part of Terminal Services installation.



As you proceed through the installation of Terminal Services, select licensing options that apply to the customer site. Specify the installation of the Terminal Server Licensing components only if another licensing server is not already available in the customer environment. As a best practice, Terminal Services in application server mode should be installed on a server that is also a member of a Windows Active Directory domain.

When prompted to select between per user and per device licensing, select the type of Terminal Services licensing that the customer has purchased.

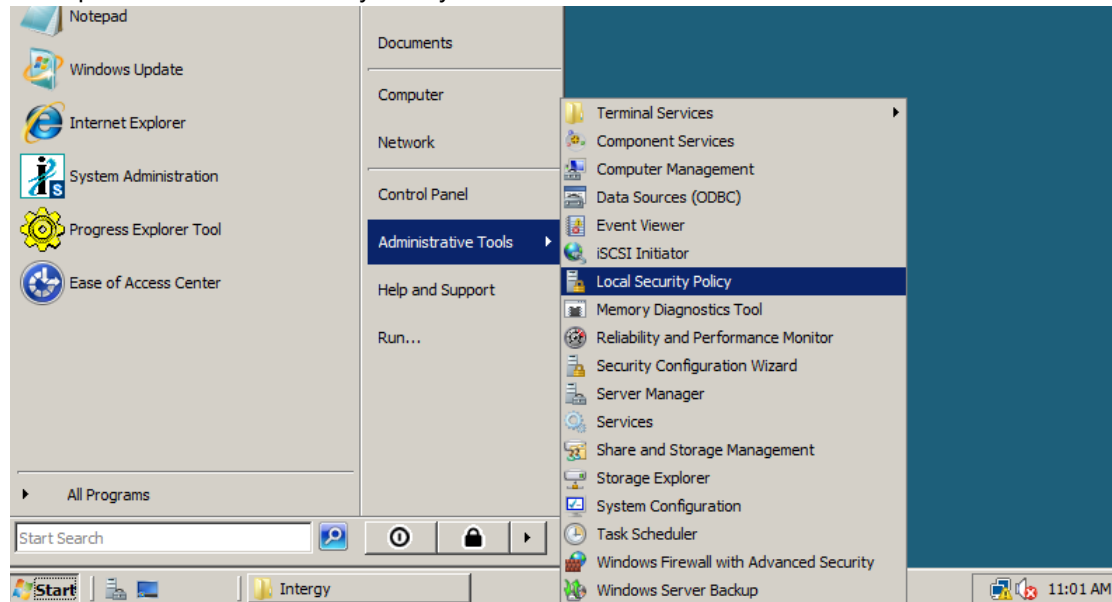
For detailed information on the deployment and operation of Terminal Services, including the different application modes available, refer to the following Microsoft Technet article:

<http://technet2.microsoft.com/windowsserver2008/en/library/e36186b2-b745-4dc7-945a-c3b83dcadb401033.mspx?mfr=true>

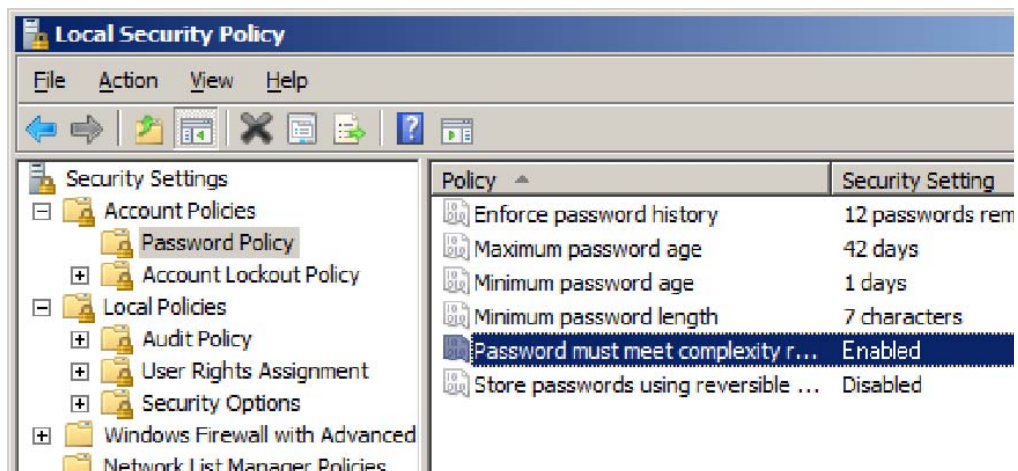
Configure Password Policy

Password complexity must be enabled to ensure security in the customer environment. Do not permit any Sage Intergy server to operate in a customer environment without the correct password complexity setting applied.

1. Open the Domain Security Policy editor from the Administrative Tools menu.



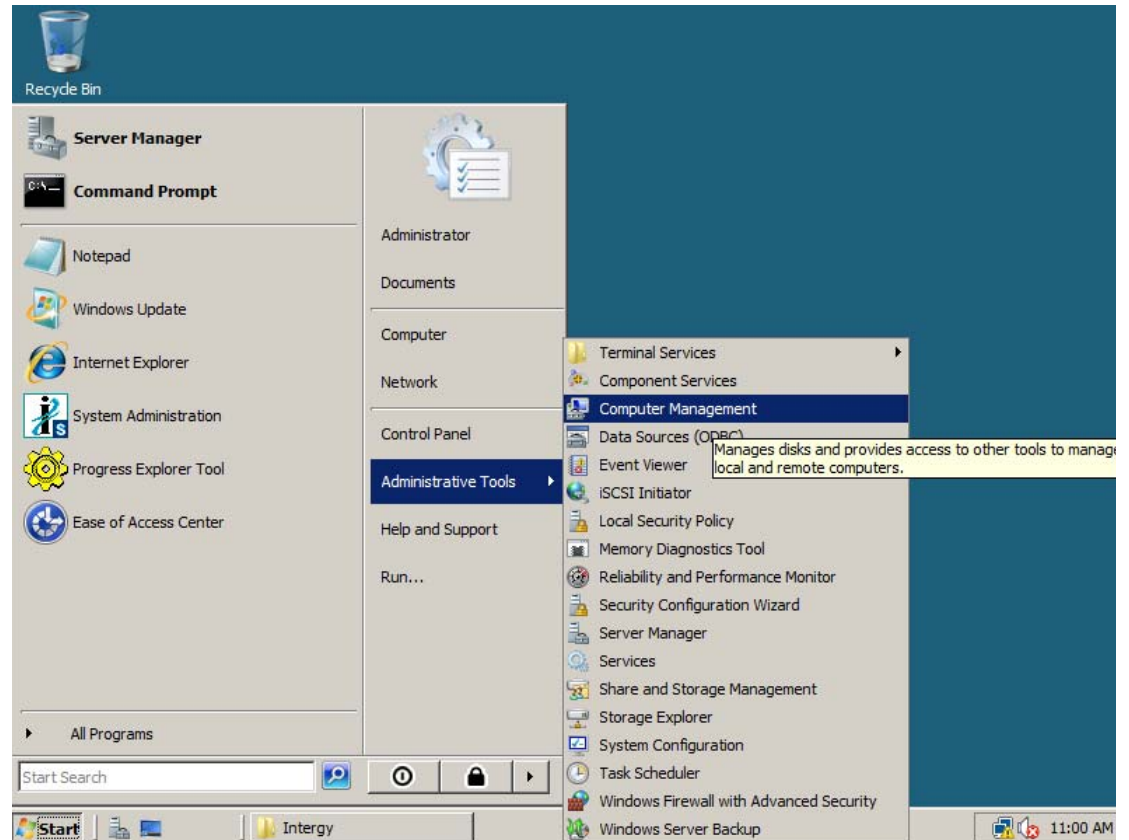
2. Using the Domain Security Policy editor, enable the 'Password Must Meet Complexity Requirements' setting as shown below. To apply this change immediately without rebooting, run the command 'gpupdate' from the Start/Run window.



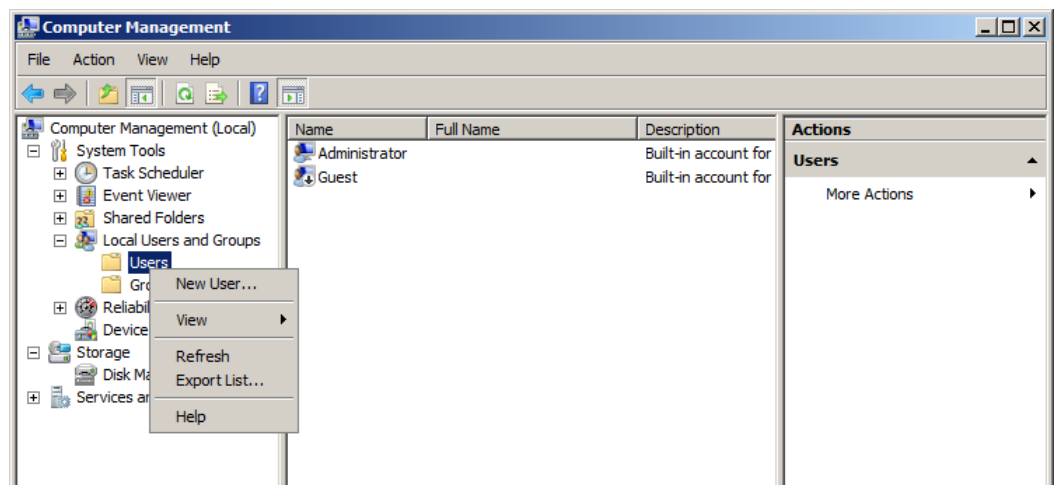
Administrative Accounts

An administrative account must be created to permit testing and troubleshooting by Sage personnel. Also, an account must be created for use by the administrative service.

1. From the Administrative Tools menu, select the 'Computer Management' item:



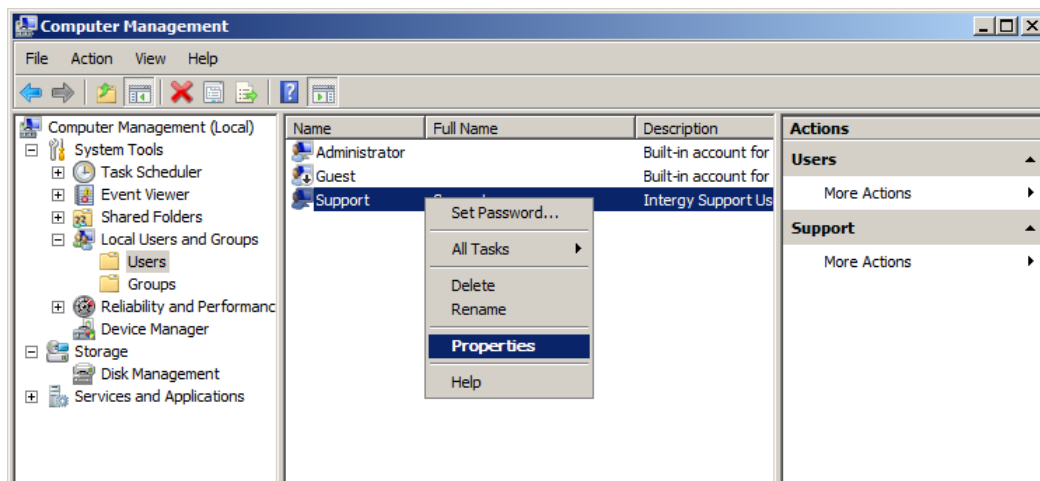
2. The Computer Management console is displayed. Expand the Local Users and Groups item in the left pane and right-click on the Users folder. Select the New User menu item.



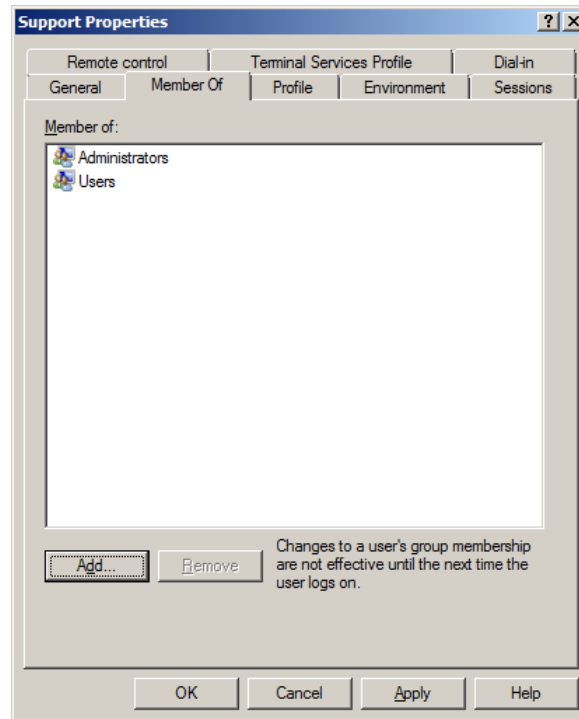
3. The New User dialogue window is displayed.

Enter the following data in the appropriate fields to create a new user object with the following settings:

- User Name – Support
 - Full Name – Support
 - Description - Sage Intergy Support User
 - Password – Int<license code> (note capital letter)
 - User cannot change password checkbox selected
 - Password never expires checkbox selected
 - Group Membership - Users, Administrators
4. Click on the Create button to create the account, and click on the Close button to exit the user creation window. When you return to the Computer Management console, right-click on the Support user and select the Properties menu item.

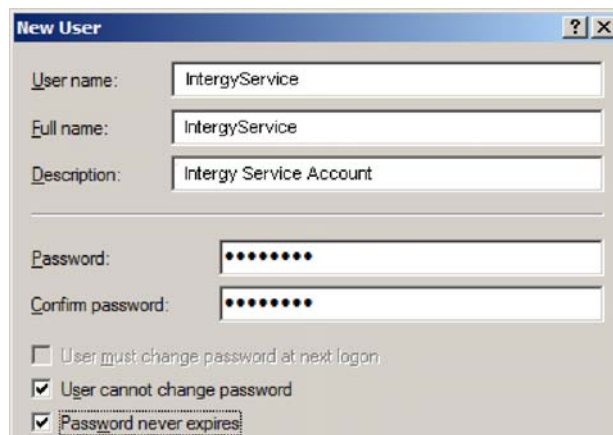


5. The account properties window is displayed.



Click on the Add button to add the Support user to both the Users and Administrators groups.

6. Repeat steps 2 through 5 to create the IntergyService account.



Enter the following data in the appropriate fields to create a new user object with the following settings:

- User Name – IntergyService
- Full Name – IntergyService
- Description - Sage Intergy Service Account
- Password – Int<license code> (note capital letter)
- User cannot change password checkbox selected
- Password never expires checkbox selected
- Group Membership - Users, Administrators

7. Click on the OK button to close the account properties window and then exit the Computer Management console.

Note that for N-tier environments, the Sage Intergy Service Account must be a domain account instead in order to permit network authentication. Refer to Chapter 4 for detailed information on installation and configuration of an N-tier environment.

Paging File Configuration

Windows servers will automatically create a system-managed paging file on the same drive as the operating system. In most cases this is the C: drive. All Sage Intergy 7.00 database servers should be configured to use the default system-managed paging file.

For more information on configuring of the Windows paging file, refer to the following Microsoft Technet Knowledgebase article:

<http://support.microsoft.com/kb/197379>

Installation of .NET Framework 3.5 for 64-bit Servers

Microsoft Windows Server 2008 64-bit edition and Microsoft Windows Server 2008 R2 64-bit edition are both supported for use as a Sage Intergy database server. However, before Sage Intergy components may be installed on this type of server, Microsoft .NET Framework 3.5 must be installed manually. Installation differs depending on the revision of the operating system that is installed.

Windows Server 2008

For the original revision of Microsoft Windows Server 2008, the .NET Framework is not included on the Sage Intergy 7.00 installation media and must be downloaded and installed separately for 64-bit systems.

To download the Microsoft .NET Framework 3.5 installation package for 64-bit systems, use the following URL:

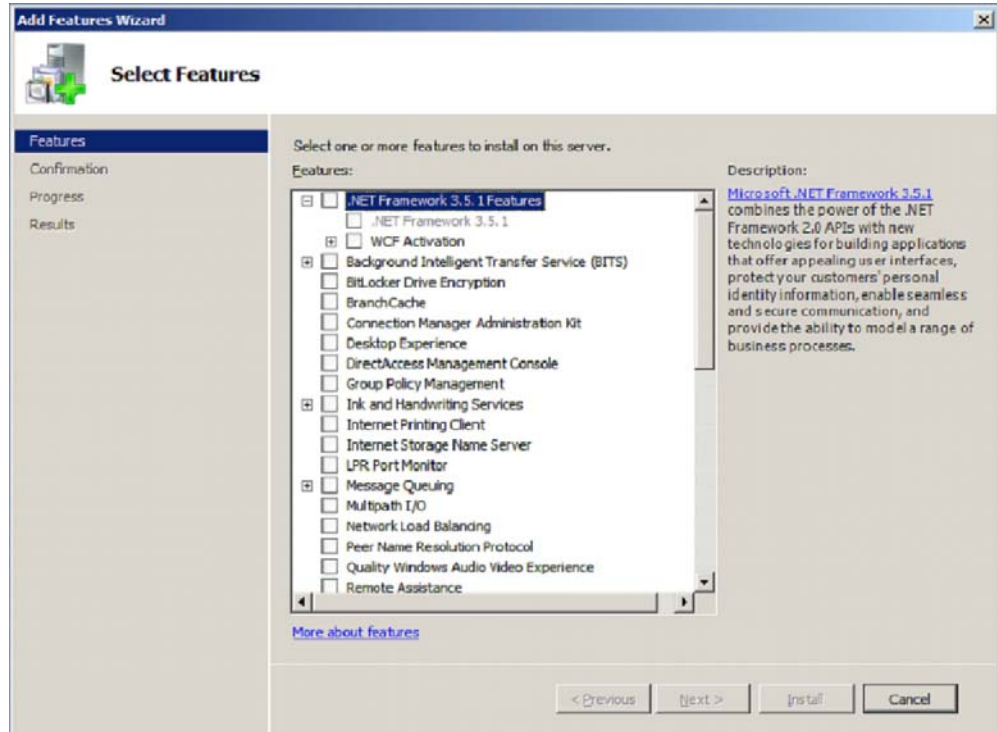
<http://download.microsoft.com/download/6/0/f/60fc5854-3cb8-4892-b6db-bd4f42510f28/dotnetfx35.exe>

Installation is interactive and self-explanatory. Do not proceed with installation of Sage Intergy on the 64-bit edition of Windows Server 2008 until .Net Framework 3.5 is successfully installed.

Windows Server 2008 R2

For the R2 revision of Windows Server 2008, the Microsoft .NET Framework 3.5 application component is already installed by default. However, for installed programs to use the .NET Framework it must be activated using the Server Manager interface.

From the Start menu, open the Administrative Tools menu and select the Server Manager menu item. Click on the Add Features option to display a list of available server features.



Note that by default, the .NET Framework 3.5.1 components are not selected. Click on the checkboxes to activate these features on all Sage Intergy servers, and proceed through the Select Features wizard to complete activation.

Alternately, you may also issue a command line instruction to activate this application component. Type the following text at the Run line on the Start Menu, or at a Command Prompt window:

```
servermanagercmd -i NET-Framework-Core
```

No reboot is required after this configuration is completed. Do not proceed with installation of Sage Intergy on the 64-bit edition of Windows Server 2008 until .NET Framework 3.5 is successfully installed.

Apply F1 Field Help Fix

It is necessary to apply a specific hotfix to the Sage Intergy database server in order to resolve a bug with help functionality. This bug affects the Sage Intergy desktop when it is used on the Sage Intergy server, and when it is provided as part of the Terminal Server remote desktop. Install the F1 Field Help Fix on all Sage Intergy database servers

Installation of the F1 Field Help Fix requires installation of a software update and modification of a registry key. For detailed information on installation of this hotfix, refer to the Microsoft Knowledgebase article at the following URL:

<http://support.microsoft.com/kb/917607>

Software Download and Update

To download the help file software update for Windows Server 2008, use the following URL:

<http://go.microsoft.com/fwlink/?LinkId=114216>

Save the file Windows6.0-KB917607-x86.msu to a temporary directory on the Sage Intergy Appliance server, and double-click on the file in Windows Explorer to execute it. Accept the license terms when prompted and allow the installation to proceed.

Registry Change

Use the following procedure to modify the registry:

1. Log on using an administrator account.
2. Click the Start button and type 'regedit' in the Start Search box, and then click regedit in the Programs list. If prompted for an administrator password, type the password and click Continue.
3. Locate or create the following registry subkey, and then click it:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WinHelp
4. On the Edit menu, point to New, and then click DWORD (32-bit) Value.
5. Type 'AllowProgrammaticMacros' and then press ENTER.
6. On the Edit menu, click Modify.
7. In the Value data box, type 1, click Hexadecimal in the Base area, and then click OK.
8. Exit Registry Editor by closing the window.

Third-Party Software Installation

Sage Intergy database servers are configured to provide thin client connections via a remote desktop connection. To support this type of client, Microsoft Word and Remote Scan are required third-party software components of all Sage Intergy database servers and separate Terminal Server devices. Microsoft Word is required to support the operation of DDS and Transcriptions, and Remote Scan is used to provide scanning capabilities for thin client desktops.

Note the following restrictions and caveats when installing these third-party software products:

- Installation of Microsoft Word requires the Volume License Key (VLK) licensing to support multiple thin client users. Before installation, verify that the license purchased by the Sage customer is appropriate for use in a remote desktop environment.
- The Remote Scan Client software edition is installed on a Sage Intergy database server, since it is used to provide client desktop connectivity. Remote Scan Server is installed on the workstation operating system where scanning hardware is connected, since this device is serving images to client. Note this distinction carefully and always remember to install the Remote Scan Client on the Sage Intergy database server.
- All third-party software installation must occur after Windows Server 2008 terminal services install mode has been activated. Do not neglect this prerequisite step before installation of Microsoft Word or Remote Scan.

For detailed information describing the use of terminal services install mode, refer to Chapter 9 of this document.

For additional information on installation of Remote Scan, refer to the vendor documentation at the following URL:

<http://www.remote-scan.com/installation-client.php>

Existing Windows Environment Configuration

A typical new Sage Intergy installation occurs on a newly installed operating system in an environment with no other computing infrastructure. However, in some customer sites the Sage Intergy application server may be installed where there is already a domain controller, or where there are already network functions like DNS and DHCP.

The field technician must work with the customer's local technical support personnel in order to incorporate a new server into an existing Windows environment or an existing network infrastructure. For larger customers with established I/T support personnel, conform to their standards for naming and operating system settings as much as is practical without impacting the successful installation of the Sage Intergy 7.00 application. Consult with Sage support if you have any questions about possible conflicts or issues with correct operation of Sage Intergy.

DHCP and DNS configuration in an existing Windows environment

In customer sites with an established computing environment, DHCP will typically be already implemented. In these circumstances, it is generally not advisable to install the DHCP service on the Sage Intergy server. Field technicians should seek the input of the customer's technical support organization when making this decision.

In the case of DNS, it may be necessary for the customer site's technical support personnel to set up a DNS zone transfer. This will allow multiple DNS servers to provide name services for other domains. For more information on advanced DNS configuration and troubleshooting, please refer to the Microsoft Windows Techcenter documentation at the following URL:

<http://technet2.microsoft.com/WindowsServer/en/library/19a63021-cc53-4ded-a7a3-abaf82e7fb7c1033.mspx>

Administrative Accounts in an existing Windows environment

In most cases, the Support account remains local to the Sage Intergy database server and all other server devices. However, because the IntergyService account is used for network access to shared resources, it must be created as a domain account. Field technicians should consult with the customer's technical support organization to have this account created on the Windows domain where the Sage Intergy database server will be joined.

Next Steps

If you are completing installation for a new customer environment, proceed to Chapter 2 to complete installation of the Sage Intergy database server. If you are installing a different type of server, proceed to the chapter that describes the appropriate application or services.

In most environments, after successful installation of a Sage Intergy database server and correct configuration of Sage Intergy settings, you may proceed to installation and configuration of Sage Intergy clients as described in Chapter 3. However, if you are installing an N-tier environment that requires additional application servers you must proceed to Chapter 4 and follow the instructions for component configuration described therein.

If you have selected Sage Intergy services for installation on the database server, you should also review the Sage Intergy 7.00 install guide appendix for each service or component. This includes items such as TMS Import, DDS, or Sage Intergy Storage Server.

Chapter 2: Database Server Installation

All Sage Intergy computing environments include one database server. In most environments this server will also function as the main application server, which is used to process client connections. Although other environments may require more than one application server, there will only be one database server regardless of the size of the customer site. Installation for the database server follows the same steps in all circumstances.

The instructions in this section apply to an environment where the Windows Server environment is already configured. Do not proceed with Sage Intergy database server installation without a properly configured network and an Active Directory domain in place.

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Typical Installation Settings

The following table lists typical installation settings used for the Sage Intergy database server in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Media Installation Share	Shared Folder Location	\\IntergyServer\IntergyDVD
	Permissions	Everyone - Read Only
Windows Configuration	Install Mode	Activate Install Mode
Sage Intergy Setup Options	Preferred Setup Type	Database Server/Appserver
	DB Server Name	IntergyServer
	Service Name	Intergy-DB
	Port	2500
	User Scaling (total number of users)	Select peak number of simultaneous users, not total number of clients
	Destination Folder	C:\Intergy
	Temporary Folder	C:\Intergy\Temp
	Add Program Icons Folder	Sage Intergy
	RMS Entity ID	Unique numeric code assigned by RMS
Additional Sage Intergy Applications	Transcription Writer Sage Intergy EHR Standalone IEHR Sage Intergy Enterprise Sage Intergy Storage Server	Select checkboxes as needed. See detailed instructions for information on Microsoft Office prerequisite for Transcriptions and service account prerequisite for Sage Intergy Storage Server
Sage Intergy Services	Report Cleanup Service	Required for all database servers
	DDS Transcription Append/ Approve Line Service, and RIS DDS Services	If needed, select only one. Do not select both for installation
	Remote Print Service Internal Labs Server Practice Portal Service TMS Import Service Cardio Service Import Encounter Finding Service	Install as needed

Application Component	Configuration Item	Value or Setting
Sage Intergy EHR Settings	Clinical Server	localhost
	Data Port	60001
	Secure Proxy Port	60004
	RMS Site ID	Blank (not required for database server installation of IEHR client)
Database Administration	Database Type	New Install
	Size	Typical (40 GB)
	Database Area AI	C:/Intergy/DB (note forward slashes)
	Database Area BI	D:/Intergy/DB (note forward slashes)
	Database Area Data	If installing database server without ISS, use E:/Intergy/DB If installing database server on same hardware as ISS, use D:/Intergy/DB
	Backup Name (for pre-serialization backup image)	C:/Intergy/DB/preserialize.dbk
Serialization	Sage Intergy System Administration logon	User Name - sysadm Note prompt to change password
Practices and Security (System Administration settings)	Assign sysadm practice administrator rights	Repeat for each practice, and fill in active practice checkboxes
	Create support user and assign practice administrator rights	User type - M Logon - support Name - Sage Intergy Support Admin User Password - int<SiteCode>
Practices and Security (Practice Administration settings)	Security group membership	Add both sysadm and support to Unrestricted security group

Drive letters and directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

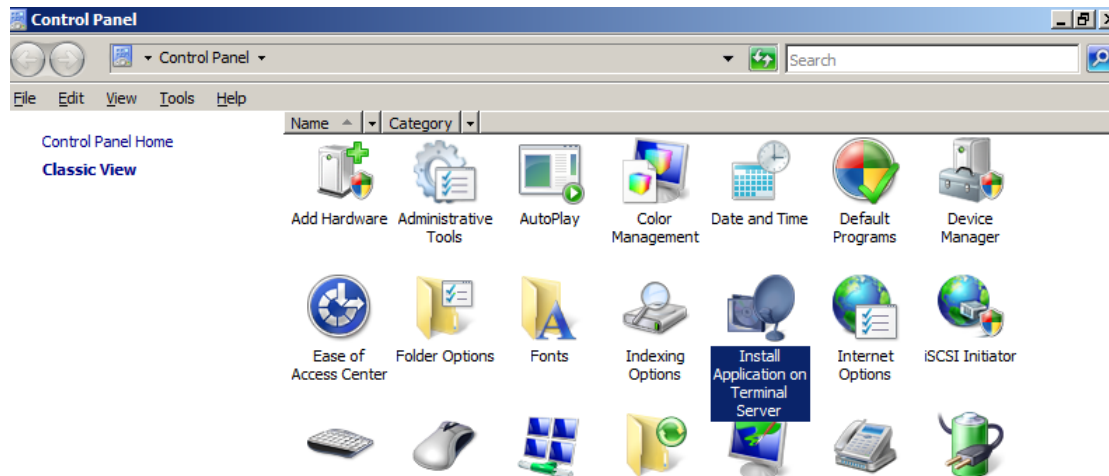
New Windows Sage Intergy Database Server Installation

Obtain the latest Sage Intergy installation media and hotfix downloads before proceeding with any installation. These instructions assume you are logged on as the local administrator, and that you will be installing the primary Sage Intergy database and application server.

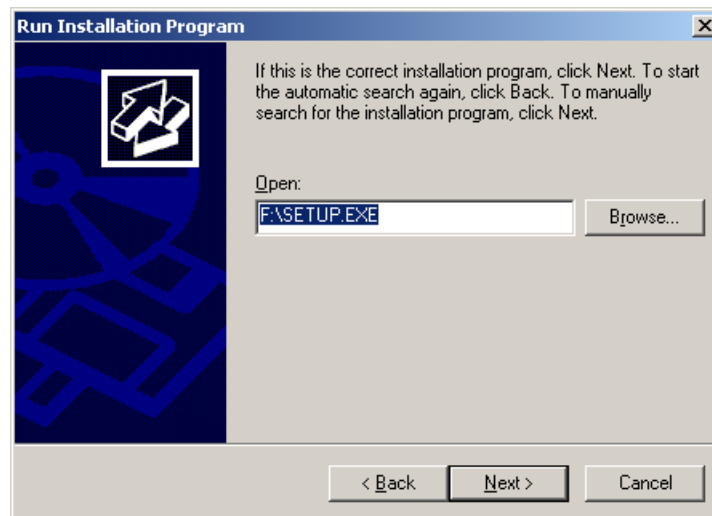
Media Installation

The Sage Intergy 7.00 DVD installation media may be copied to a shared folder on a single server. The preferred location for this share is the D: drive of the Sage Intergy Server. Use the share name \\IntergyServer\IntergyDVD and install from this location instead of physical media for installation without using the disk. If you are using a shared folder to install any Sage Intergy component, you may disregard instructions related to disk insertion.

1. You are required to use Install Mode for all new installations of Sage Intergy database servers, to support Terminal Services for client connectivity. Open the Install Application on Terminal Server control panel.



2. When prompted for installation media, insert the Sage Intergy for Windows installation DVD media in the server.
3. The Run Installation window is displayed.

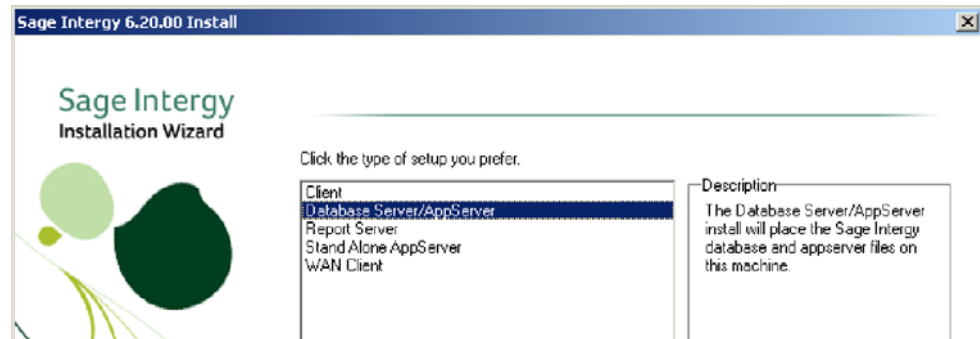


If the correct drive letter and executable are not displayed, manually open the 'setup.exe' file on the root of the DVD directory by clicking on the Browse button and selecting the correct file from the Windows Explorer dialog. The Sage Intergy Setup window will be displayed, and you should click on the Next button to proceed.

4. The Sage Installation Wizard welcome window is displayed next. Click on the Next button to proceed to the next step.

Select Setup Option

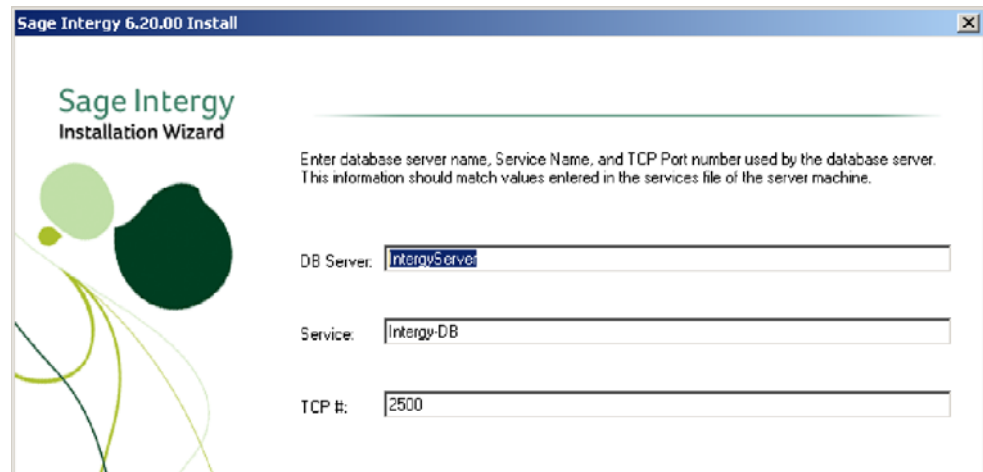
- The setup options window is displayed next. The default choice is to install the client only. From the menu, select the 'Database Server/Appserver' item and click on the Next button to proceed.



Note the other menu items available for installation here. Stand Alone AppServer installation may only occur after one or more database servers are installed first. A Report Server is used only in environments with WAN clients. Note also that normal clients (LAN) and WAN clients have different installation options available at this window.

Enter Services Configuration Data

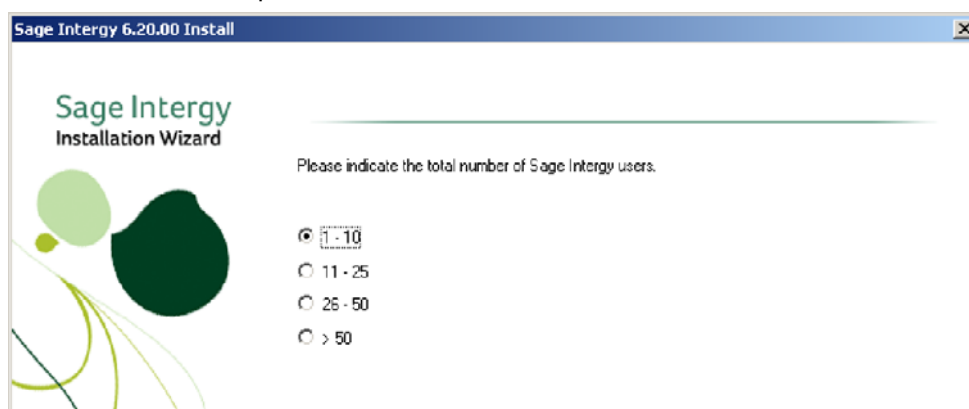
- After clicking on the Next button, the services configuration window is displayed. Although default options are preferred for most environments, make sure that the correct server name is entered and that the use of TCP port 2500 does not conflict with other applications installed in the customer's environment. Click on the Next button to proceed after making any necessary changes.



Set User Scaling

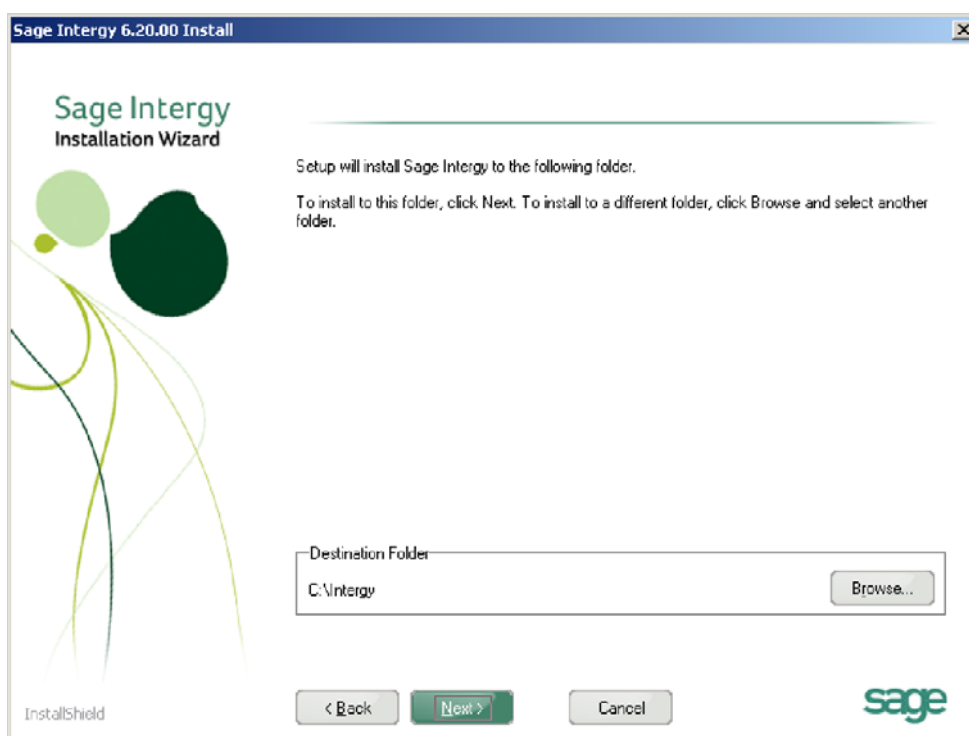
- The user scaling window is displayed. Select the radio button that most closely represents the number of simultaneous users who will be connected to the Sage Intergy database. For example, a customer site with twenty employees and two work shifts might only have ten users simultaneously connected. This screen is used to determine

tuning parameters and not licensing restrictions. Make the appropriate selection and click on the Next button to proceed.



Set Destination Folder

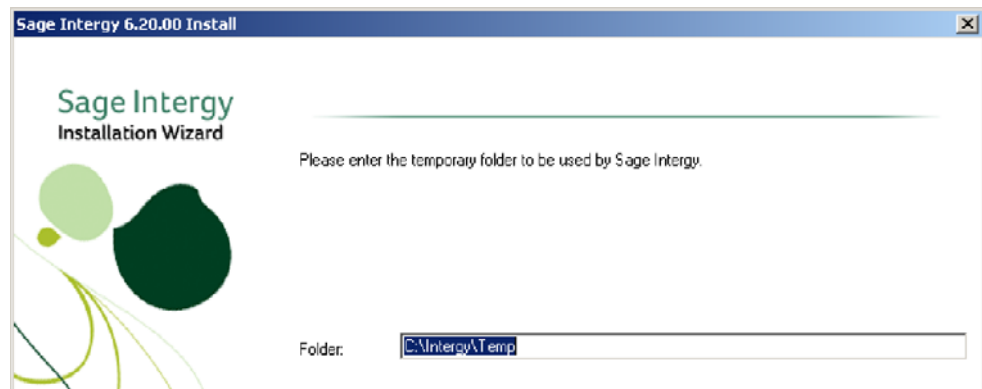
8. The destination folder window is displayed. The preferred location for Sage Intergy application components is the C: drive in a top-level folder. If necessary, change the destination folder before clicking on the Next button to proceed to the next step.



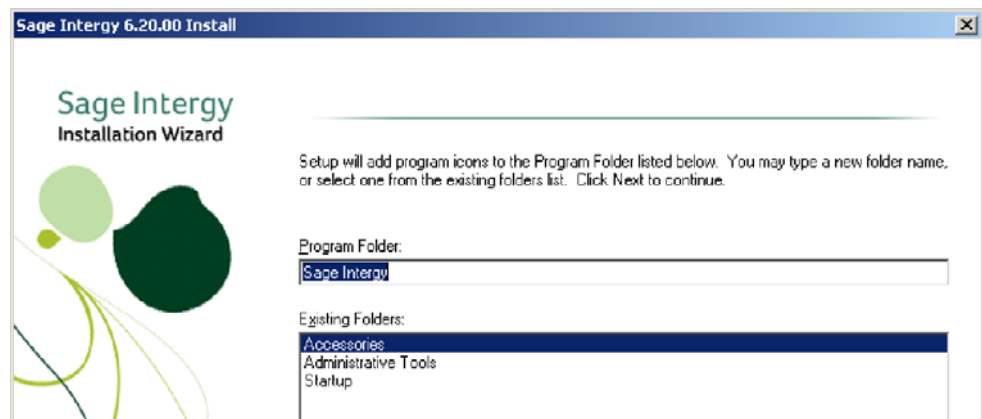
Set Temporary Folder and Program Icons

9. The temporary folder window is displayed. In most circumstances you should set the value 'C:\Intergy\Temp' and then click on the Next button to proceed. Note that some

versions of the installation media may present an incorrect default value. All new installations of Sage Intergy should use the 'C:\Intergy\Temp' value.

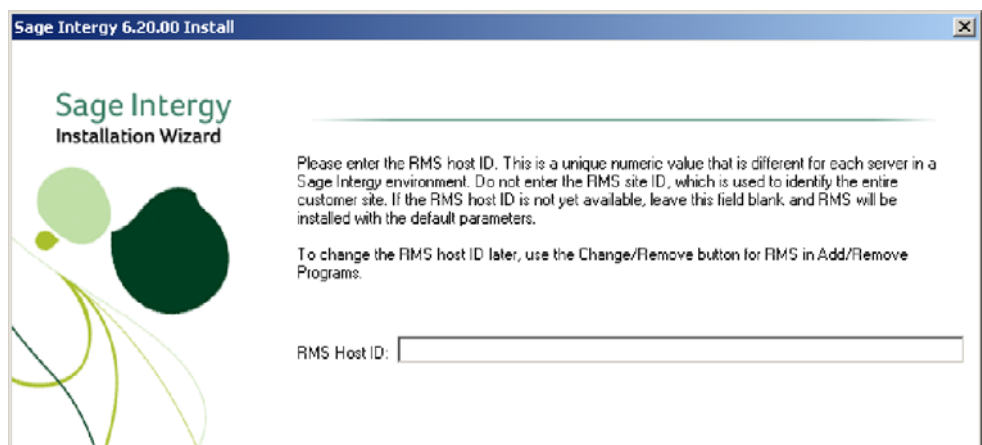


10. The add program icons window is displayed. The default option will create a new program group called 'Sage Intergy.' Click on the Next button to proceed.



Enter RMS Host ID

11. The RMS Host ID window is displayed. The RMS Host Identifier is a unique numeric value that permits Sage personnel to perform remote troubleshooting activities when not present at the customer site. If you have this information, you may enter it at this time. If not, this item may be safely configured after installation is complete, and may be left blank.



For additional information on how to obtain the RMS Host ID, refer to page 14-18 in the Sage Intergy Technical Process Reference, in the section titled RMS Configuration.

Select Additional Sage Intergy Applications

- 12.** The additional applications window is displayed. At this window, you may elect to install other Sage Intergy components as needed by the customer.



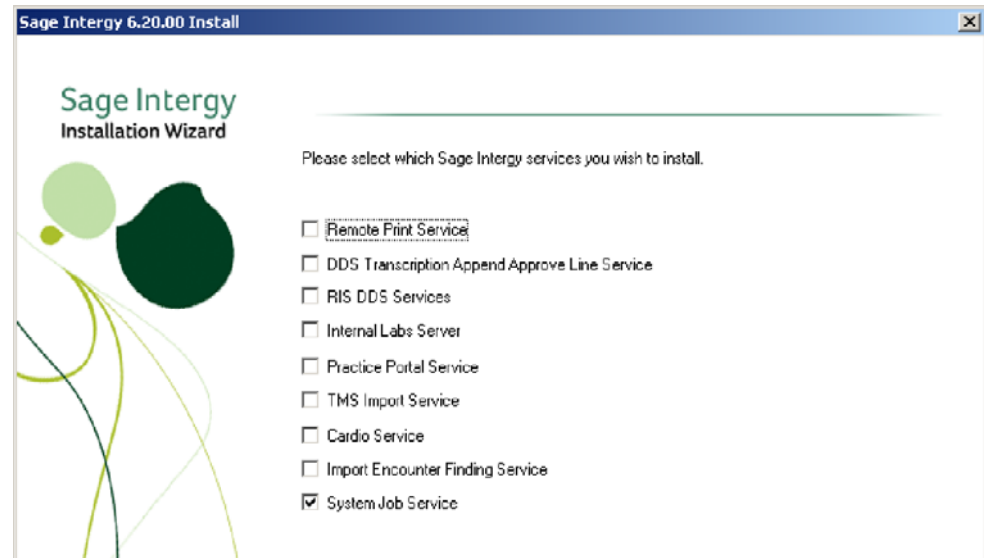
The following options are available:

- Sage Intergy Transcription Writer - For use in customer sites where transcriptions processed. Microsoft Word must be installed before Transcription Writer may be implemented.
- Sage Intergy EHR - The Electronic Health Records component of Sage Intergy, installed when using Sage Intergy as the main practice management software.
- Sage Intergy EHR Standalone - The Electronic Health Records component of Sage Intergy, but installed for use with a different practice management application. This installation option creates application shortcuts with different names and startup options to support use with Sage Medical Manager or another practice management system.
- Sage Intergy Enterprise - The single-desktop application used for managing multiple practices. This require additional serialization and is not selected by default.
- Sage Intergy Storage Server - The FileX imaging server application replacement. This is selected by default and is expected to be installed on the same server as the main Sage Intergy database.

Note that all components may be installed, but some may not be available to the customer without the appropriate licensing and serialization action. Mark the checkboxes for the component installation required for this customer and click on the Next button to proceed to the next step.

Select Sage Intergy Services

13. The Sage Intergy services installation window is displayed.



The following options are available:

- Remote Print Service - Required for environments where Sage Intergy EHR PDA clients are used for printing. It is strongly recommended that RPS be installed in customer sites that have Sage Intergy EHR PDA implemented. Refer to Chapter 11 for additional information on configuration of printers and related services for Sage Intergy customer sites.
- DDS Transcription Append/Approve Line Service - A single DDS service for use with transcription approvals only. When installing DDS, select only one DDS service option. Do not select both the Append/Approve and RIS items for any site.
- RIS DDS Service - A set of up to five DDS services for complex processing of document delivery. When installing DDS, select only one DDS service option. Do not select both the Append/Approve and RIS items for any site.
- Internal Labs Server - For labs processing. This is also known as the Laboratory Information System, or LIS service. Refer to Appendix E for additional information on installation and configuration of the LIS service.
- Practice Portal Service - For transmission of patient data to a third party web application.
- TMS Import Service - The Transcription Management Service processes transcriptions that are generated by an external application and not with the Sage Intergy Transcription writer.
- Cardio Service - This service collects data from an input device that is connected to an external heart meter. Refer to Appendix G for additional information on installation and support of the Cardio service.
- Import Encounter Finding Service - For processing of encounter notes from an external application.
- System Job Service - A service that manages scheduled tasks and other timed functions of Sage Intergy. This is distinct from Windows services and Windows scheduled tasks. This service is installed by default on the primary Sage Intergy database server only, and not on other application servers or stand alone servers.

Check the boxes for component installation required for this customer and click on the Next button to proceed.

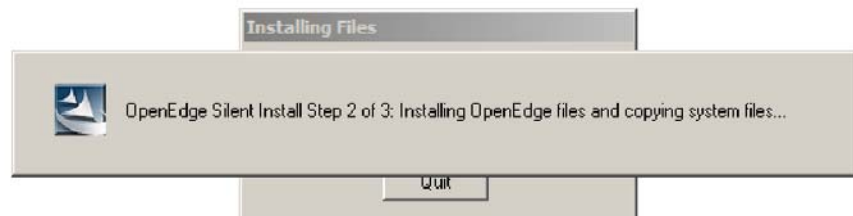
Media Installation Continues

14. A confirmation window is displayed, showing all of the options and features chosen for installation. Review this list carefully before proceeding, and make sure that selected components match the requirements of the customer site. Click on the Next button when ready to proceed.

15. If you are installing from the CD-ROM drive, insert each disk of the Sage Intergy installation media when prompted. You will observe status screens for installation of each of the following components:

- Microsoft .NET Framework
- Progress OpenEdge Database and Administrative Service
- ODS Tools
- Sage Intergy Storage Server (if selected for installation)
- Sage Intergy Client Patch
- Clinical Chart Folder
- Sage Intergy Interop
- Ultia Service (status command console windows)

As the Progress OpenEdge database and service pack installation occurs, note that there is an interactive button displayed behind one of the dialog windows:



A Cancel or Quit button that is displayed is part of the native Progress Installshield package. **Do not under any circumstances click on any button marked Cancel or Quit.** This is not an appropriate method to abort the installation. Interrupting the Progress installation in this fashion will invalidate the Sage Intergy server installation and force a rebuild of the operating system and all installed components. Always allow the Progress installation package to complete before taking any action against the server, and warn any customer representatives or technical support personnel of this issue as necessary.

Sage Intergy EHR Installation Data Entry

16. If the Sage Intergy EHR installation option is selected for a server, the client installation portion will prompt for parent server data. You will be prompted for the following information:

- Clinical Server Name
- Data Port Number
- Server Proxy Port Number
- RMS Site ID

It is not necessary to enter the RMS Site ID unless the EHR client is installed as part of a WAN client. Under normal circumstances you do not need to enter the RMS Site ID when installing Sage Intergy EHR on a database server or application server.

The Clinical Server Name is the main Sage Intergy database server name. As a best practice, use the default 'localhost' entry for this field when installing Sage Intergy EHR on the primary Sage Intergy database server.

17. Sage Intergy installation is complete when the completion window is displayed. Remove the Sage Intergy for Windows installation disk. Because this is the first Sage Intergy database server, select the Yes radio button option and click on the Finish button to reboot the server.

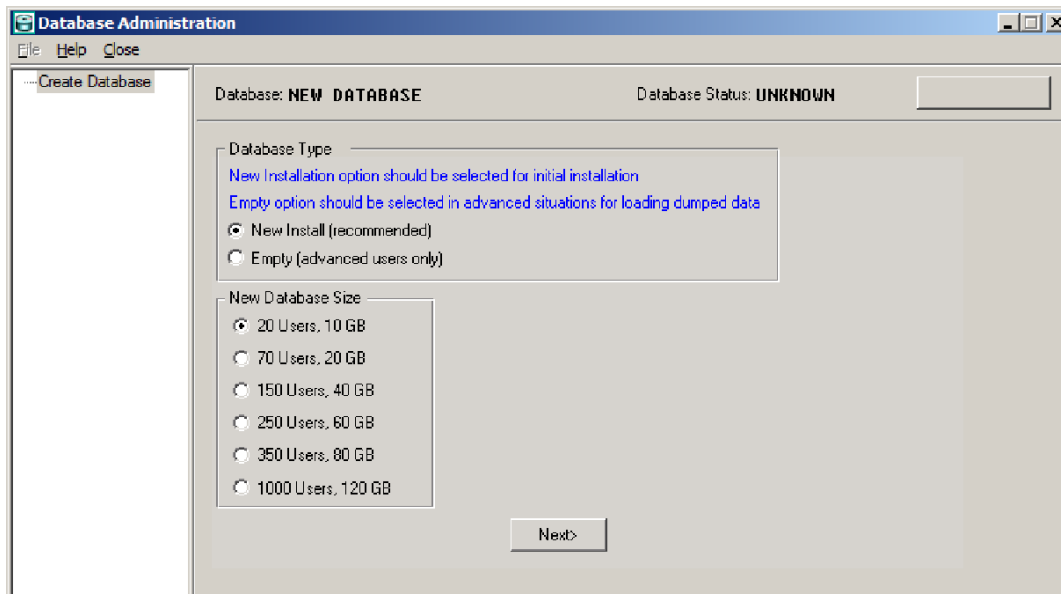
Database Configuration

Configuration of the database must occur immediately after media installation has completed. Do not attempt to install Sage Intergy clients or configure other Sage Intergy application components until the database is properly configured and serialized.

1. When the server has successfully rebooted, log on as the administrator and begin setup of the Sage Intergy database. To perform this function, open the Sage Intergy folder on the desktop and double-click on the Database Administration icon.

Database Sizing

2. In the Database Administration tool, the Database Type Window is displayed. Make sure that the New Install radio button option is selected. Then select the appropriate database size option for the customer environment. Select the New Database Size option that most closely matches the number of base users for the customer environment. Click on the Next button to proceed.



Database File Location Assignment

3. The Database Assignment window is displayed. In most customer environments, you will set up the database in one of these two recommended configurations:

Sage Intergy Database Only:

- After Image (AI) – C:/Intergy/DB
- Before Image (BI) – D:/Intergy/DB
- Main Sage Intergy Extents (DATA) – E:/Intergy/DB

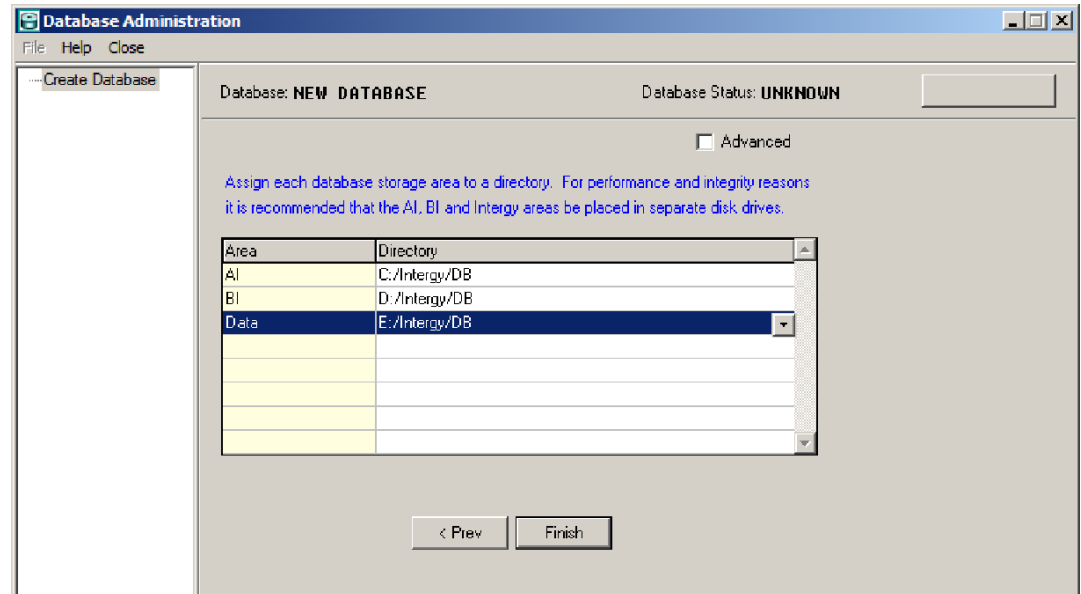
Sage Intergy Database with Sage Intergy Storage Server:

- After Image (AI) - C:/Intergy/DB
- Before Image (BI) - D:/Intergy/DB
- Main Sage Intergy Extents (DATA) - D:/Intergy/DB

If you are installing Sage Intergy Storage Server on a single server with no external storage array, reserve the E: drive for storage of images and other data. If you are not

installing Sage Intergy Storage Server, or are installing Sage Intergy Storage Server to be used with an external storage array, make sure that all three database components are installed to separate physical drive arrays.

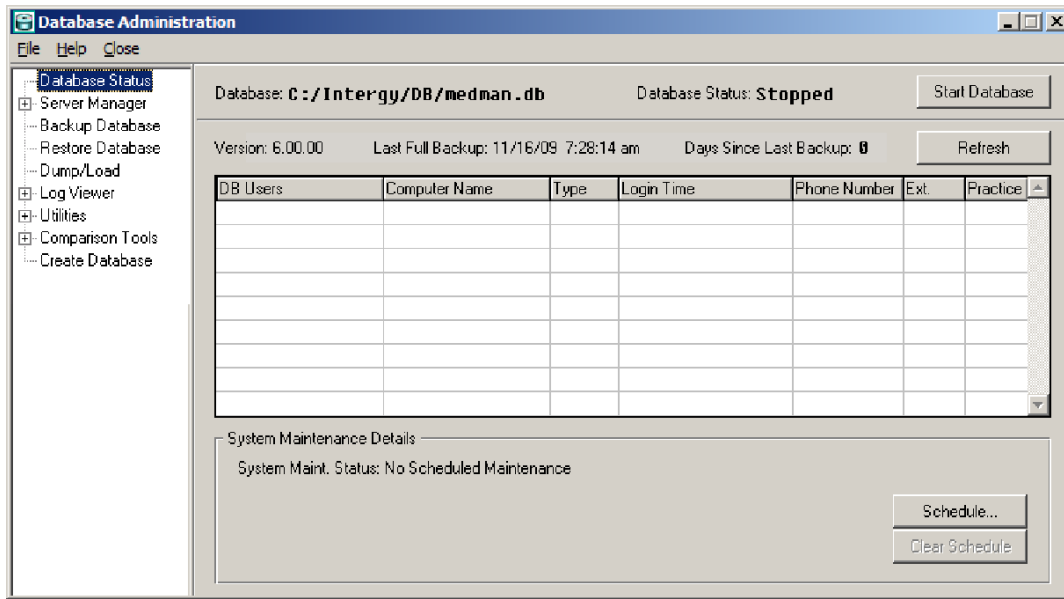
Note the use of forward slashes instead of back slashes, which would ordinarily be used under Windows or DOS. This is a convention used by the Progress product and is not an error. If necessary, make the appropriate changes to match standards or the customer environment.



Note the Advanced checkbox in the upper right corner. Do not fill in this checkbox except under the direction of R&D personnel. Advanced database configuration is not required on a properly configured server. Please refer to the Sage Intergy System Requirements document for more information on hardware requirements specific to hard disk storage.

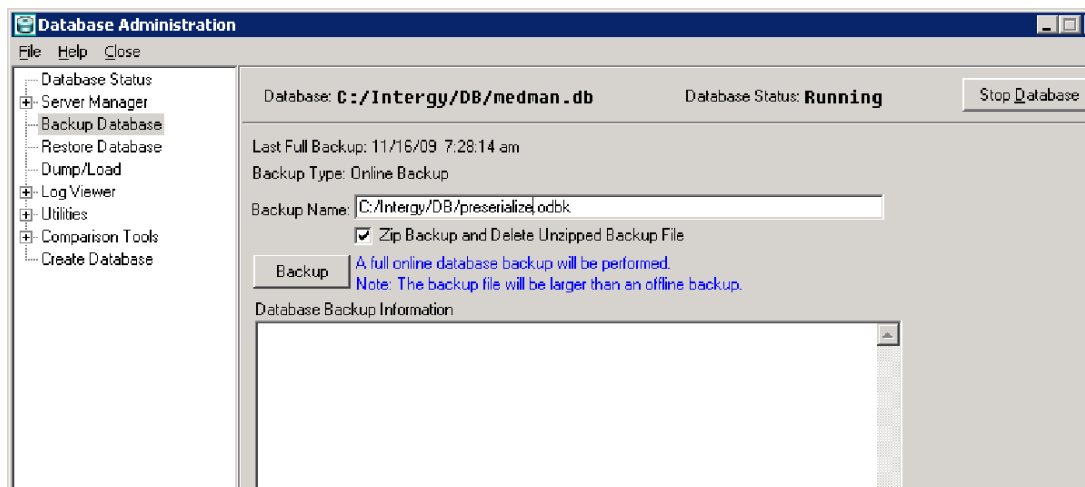
4. Click on the Finish button to create the database area files and complete configuration of the Sage Intergy database. You may be prompted to create directories which do not yet exist. The process of creating database extents will take several minutes for a small database, and up to several hours for a larger database.

When this is complete, the main Database Administration console is displayed:



Preserialization Backup

- Before configuration occurs, you should perform a backup of the newly created database. Click on the Backup Database item in the left menu pane to display the backup configuration options:



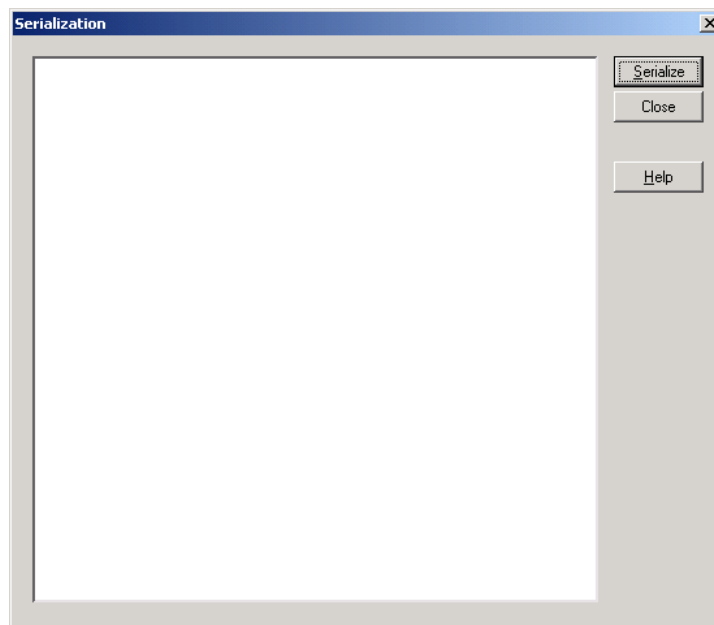
Use the filename 'C:/Intergy/DB/preserialize.dbk' for this backup, and note the use of forward slashes instead of back slashes. Click on the Backup button to create the backup file, and click OK when the successful completion dialogue window is displayed.

- When the backup is complete, click on the 'Start Database' button and wait for the Database Status line to show the 'Running' text. Close the Database Administration tool when the database has entered the running state.
- Before completing any serialization or database tuning action, apply any applicable Sage Intergy hotfixes or patches. Some changes to the application may affect the process of serialization, licensing and other application configuration functions. Do not proceed with any further installation actions until hotfixes and patches are installed.

Serialization and Licensing

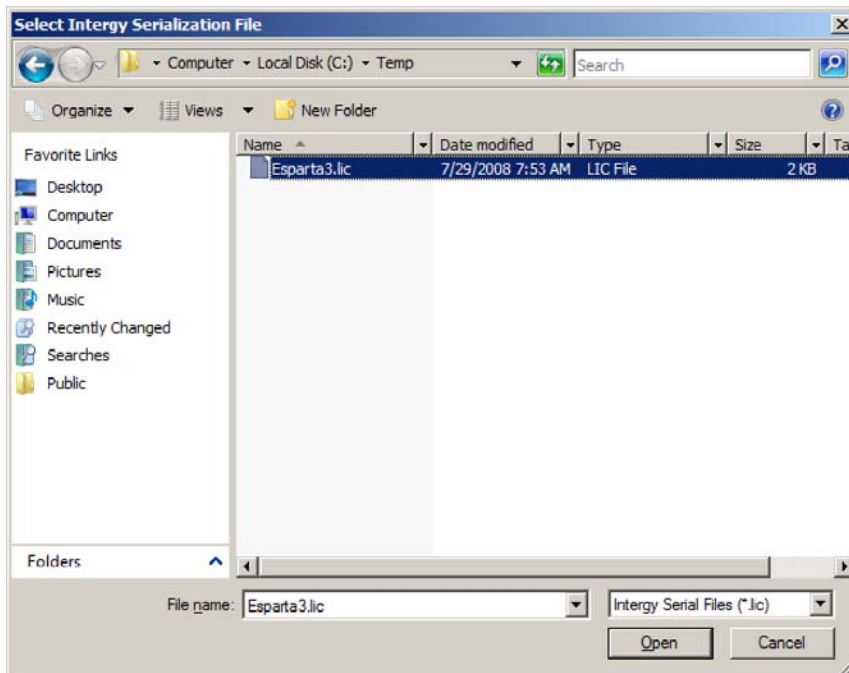
Serialization must be applied to activate Sage Intergy application components purchased by the customer. A small file with a .lic extension is distributed via physical media or electronic transmission, and should be available to the installing technician before configuring the database server or visiting the customer site.

1. To apply serialization, open the Sage Intergy System Administration Desktop. From the Sage Intergy folder on the desktop, double-click on the System Administration icon.
The Sage Intergy System Administration Logon window is displayed. Type 'sysadm' for both the username and the password, and click on the OK button to log in.
2. You will be prompted to change the password the first time you use the System Administration tool. The preferred password for use with the sysadm account is the alphanumeric Site Code followed by the characters 'int' with no spaces.
3. The Serialization window is displayed. Note that this window contains no information or content. Click on the Serialize button.

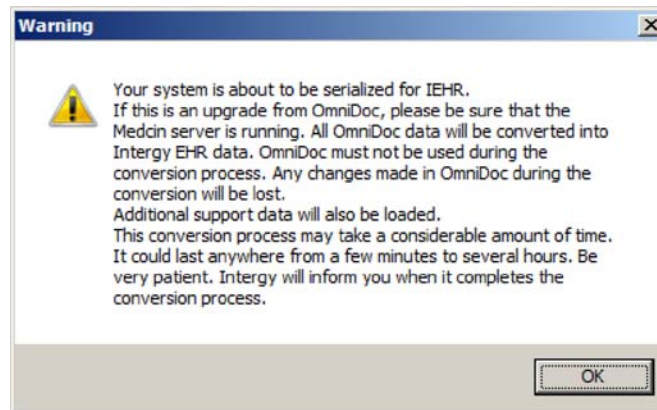


4. The Select Sage Intergy Serialization File window is displayed. At this point, insert the media with the serialization file. This file will usually have the file extension LIC.

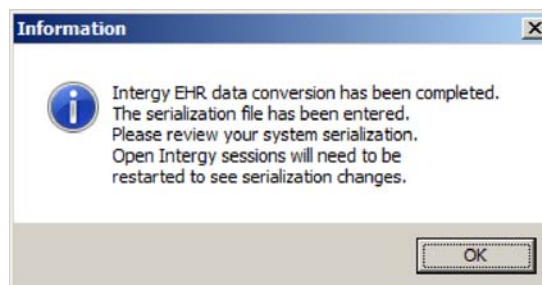
Alternately, you may copy this file to the local C: drive. Select the file and click on the Open button to proceed.



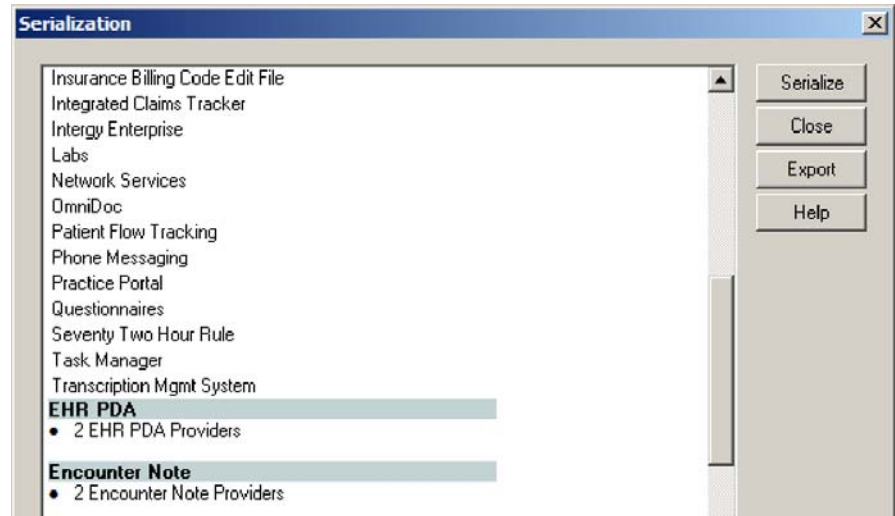
5. If this serialization file includes a license for SIEHR, a warning window will also be displayed. Read the text of the warning. Because this is a new installation, you will not need to notify the customer about the restriction on OmniDoc usage. Click on the OK button to proceed.



If EHR installation occurs, another notification window will be displayed to indicate that Sage Intergy EHR conversion has completed. Because this is a new installation, there are no open Sage Intergy application sessions to restart. Click on the OK button to proceed.



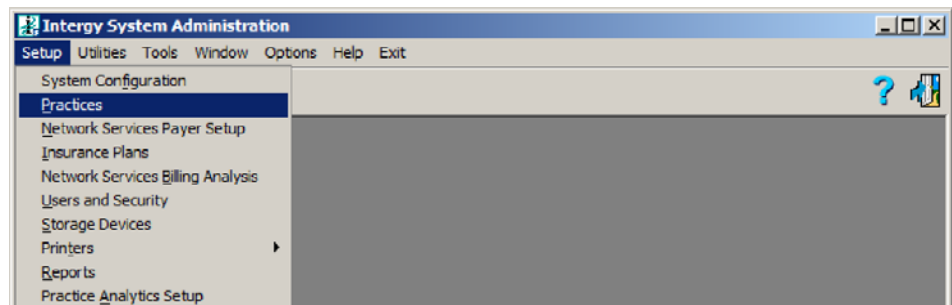
6. After several minutes, the Serialization window is displayed with content and information on licensed products and subsystems. If necessary, review this information with the customer representative to ensure that all purchased licenses are represented on the screen. Note that the Export button is available to produce an output file for troubleshooting by R&D. This file cannot be used as a replacement serialization file. Click on the Close button to exit the Serialization window.



Practices and Security

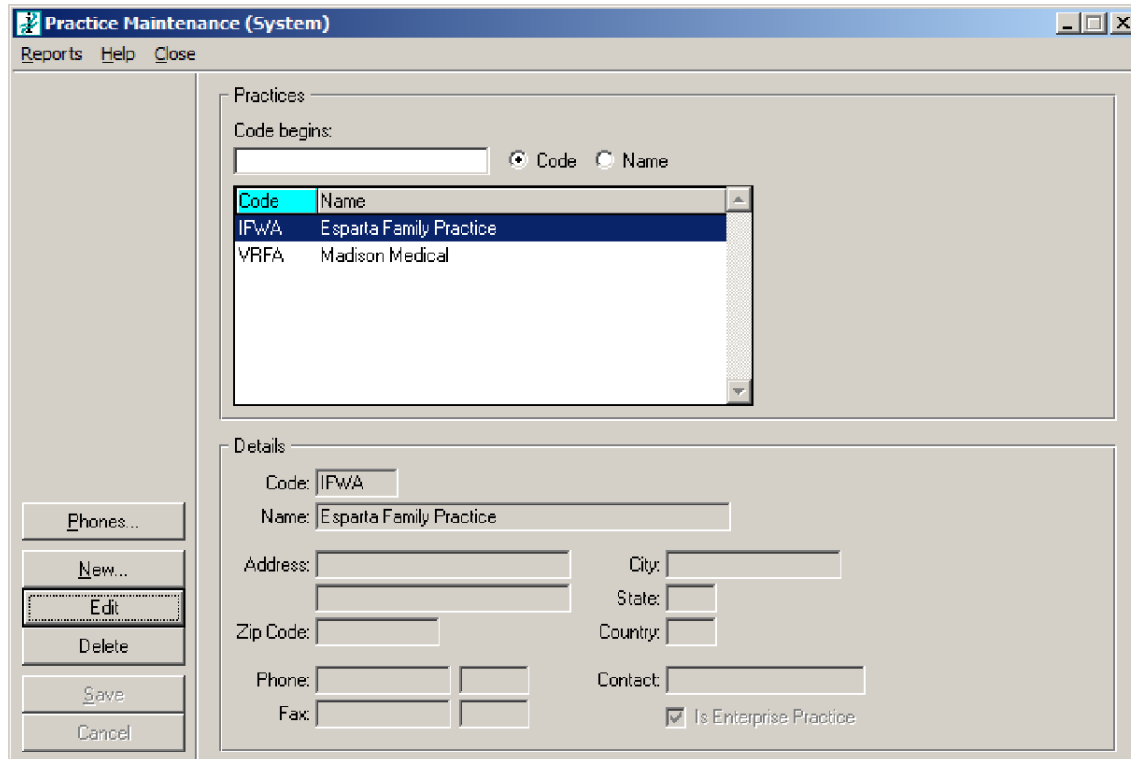
After serialization is completed, the main Sage Intergy System Administration Desktop is displayed. Before proceeding with security configuration, make sure that all licensed practices are successfully serialized.

1. From the Setup menu, select the Practices menu item to proceed.



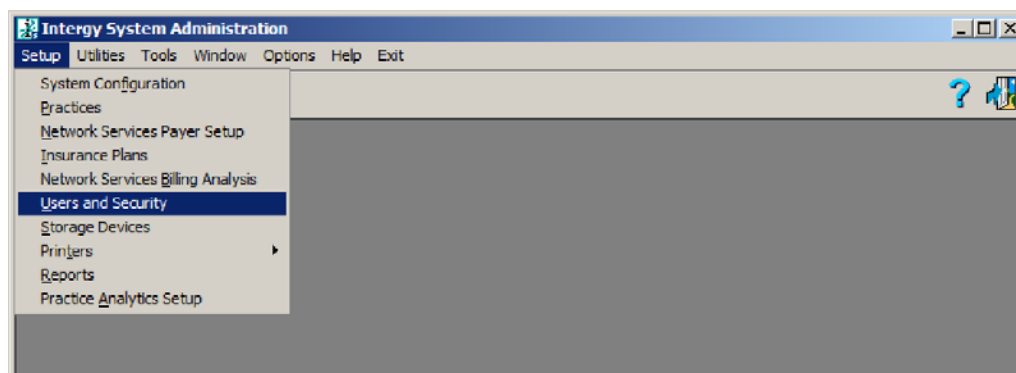
Verify Listed Practices

2. The Practice Maintenance window is displayed. Make sure that all licensed practices are displayed in the practice code list. Select the Close window after you have finished viewing the practice data.



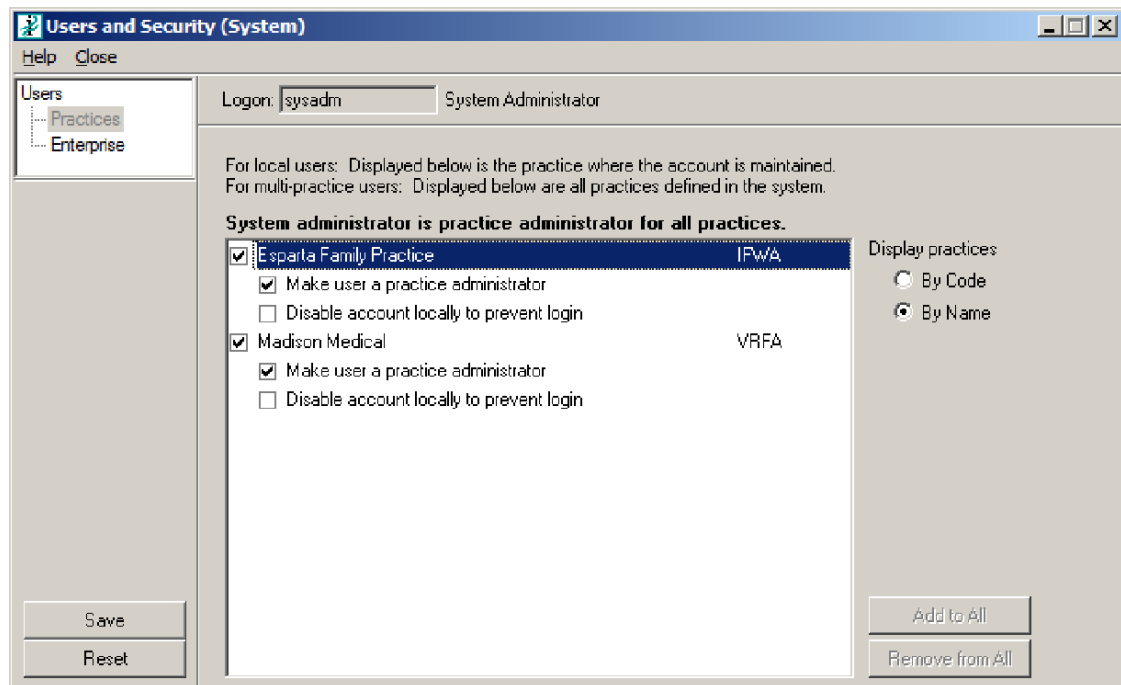
Configure System Administrator as Practice Administrator

3. While the Sage Intergy System Administration Desktop is open, it is also necessary to make sure that the system administrator account is also a practice administrator on all licensed practices. Select the Users and Security menu item from the Setup menu to proceed.



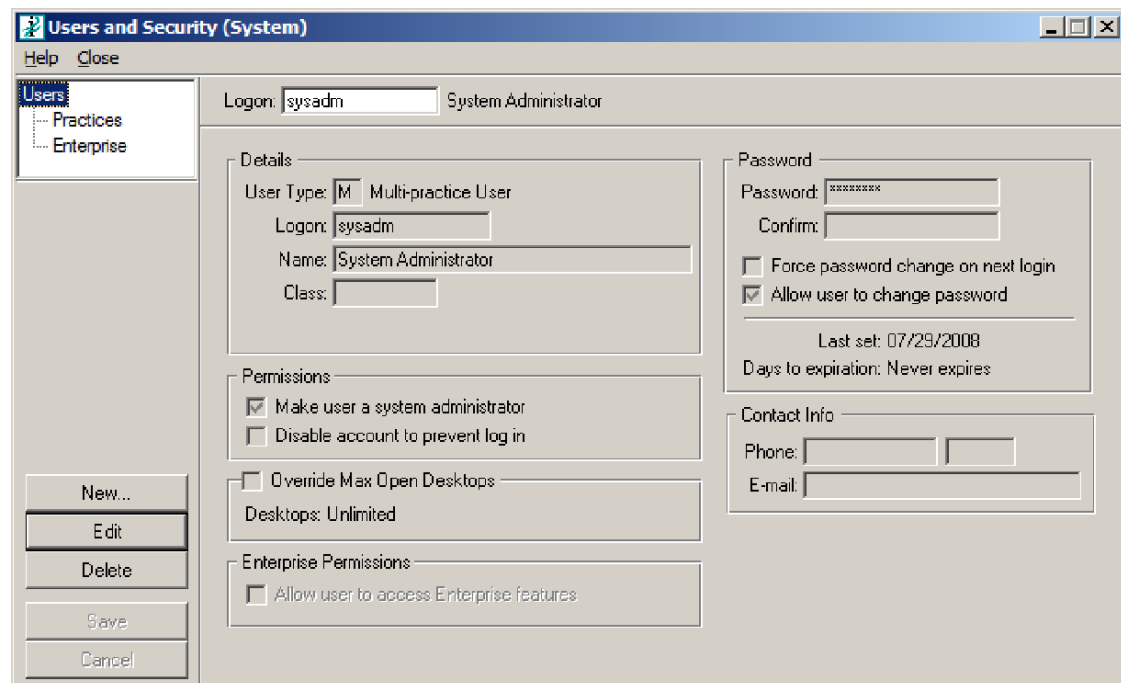
4. The Users and Security window is displayed. With the 'sysadm' account selected, click on the Practices hierarchy item in the left pane. When the practice administrator list is displayed, make sure that the checkbox is selected next to each practice and next to the

'Make user a practice administrator' option. Make any necessary changes and click on the Save button to save your changes.



Create Support User Account

- While the User and Security window is open, it is also necessary to create an account for support services. Click on the Users hierarchy item in the left pane, and then click on the New button in the lower left corner.



- The New User Account window is displayed. Populate a new administrative user with the following information:

- User Type: M
- Logon: 'support'
- Name: 'Sage Intergy Support Admin User'
- Password: int<Site Code>

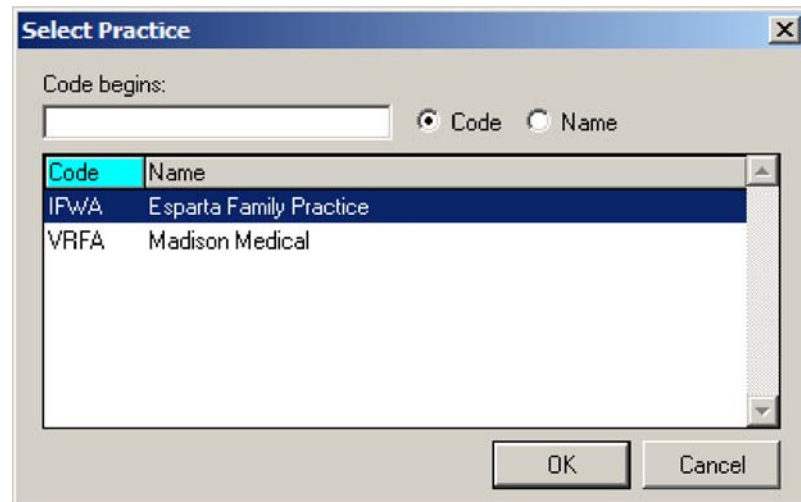
Note that the password for the support logon is intentionally different from that used for the system administration logon. Make sure that you check the box for system administrator permissions as well. Click on the Save and Close buttons,

7. At the main Users and Security window, click on the Logon drop-down button. The User Accounts Selection window will be displayed. Select the newly created Support user and then close the window.
8. At the main Users and Security window, click on the Practices hierarchy item in the left pane. When the practice administrator list is displayed, make sure that the checkbox is selected next to each practice and next to the 'Make user a practice administrator' option. Click on the Save button to save your changes. Close the Users and Security window.

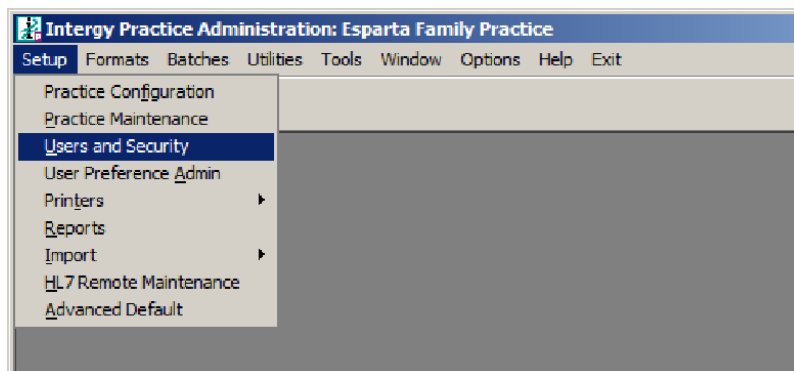
Set User Account Group Membership

9. At this point, it is necessary to set up practice security parameters. This configuration occurs in the Practice Administration Desktop under the Sage Intergy desktop folder. Double-click on this icon to proceed.
10. The Sage Intergy Practice Administration Desktop is displayed. This window uses the same logon information as the System Administration Desktop. Use 'sysadm' for the logon name, and '<Site Code>int' for the password. Substitute the actual configured password if you did not use the preferred format. Click on the OK button to proceed.

11. If this site is serialized for multiple practices, the practice selection window is displayed. Select the practice to configure and click on the OK button to proceed.

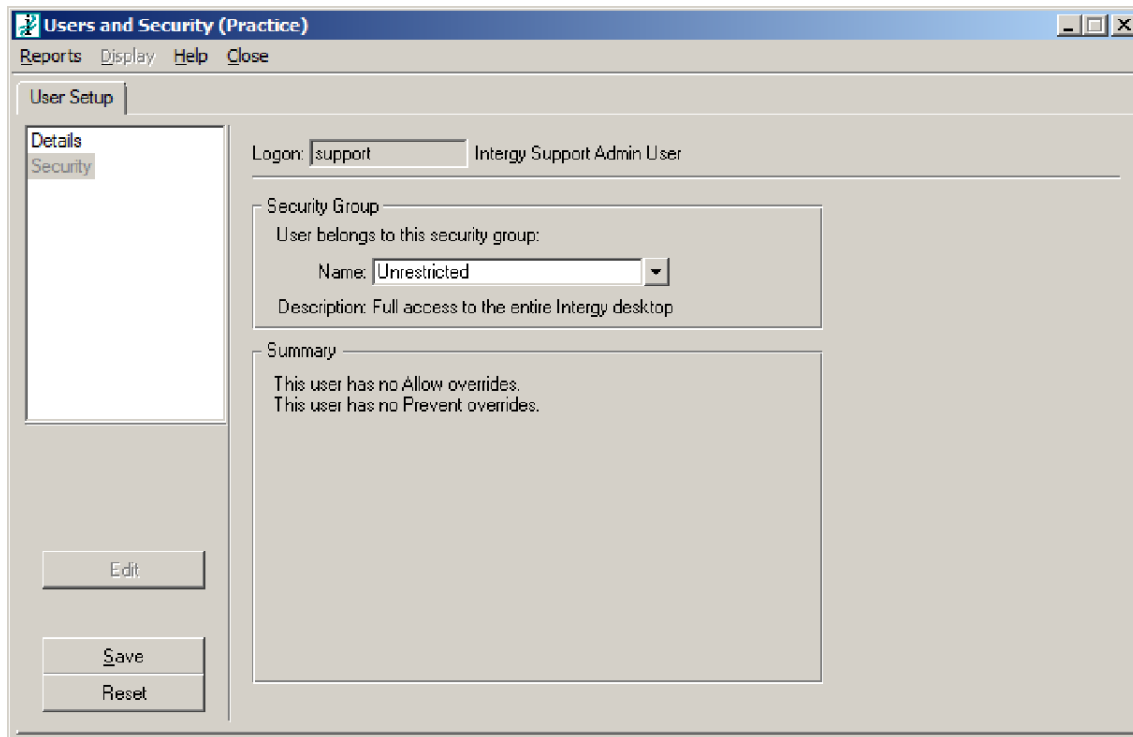


12. The Sage Intergy Practice Administration Desktop is displayed. Under the Setup menu, select the 'Users and Security' menu item.



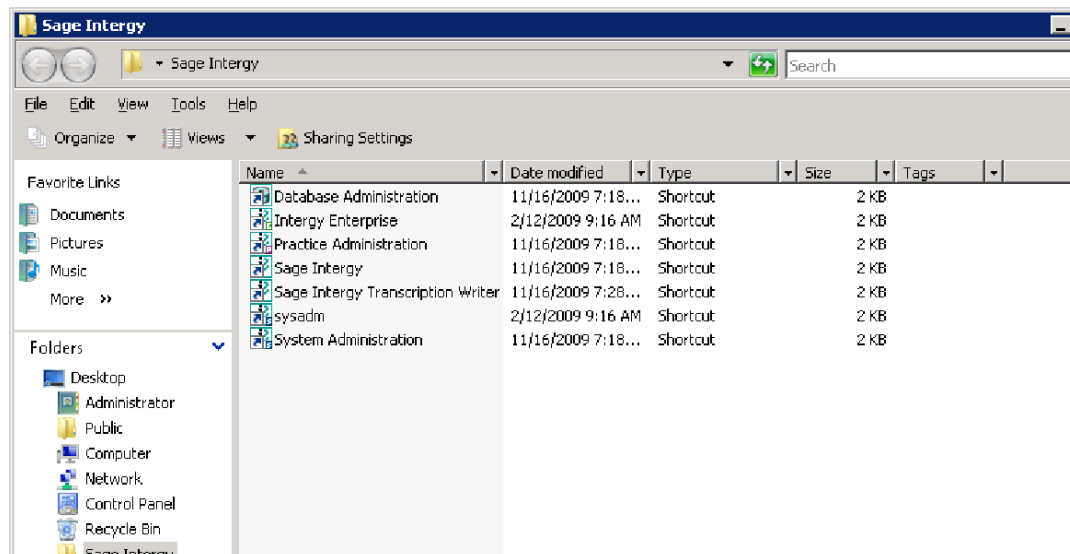
13. The Users and Security window is displayed. With the 'support' user selected, click on the Security hierarchy item in the left name to display the Security Group dialogue. Note that the security group field is blank. Click on the drop-down button next to the Name field. The Security Group Selection window is displayed. Select the Unrestricted list item, then click on the OK button. Note that the support account is now listed as a member of

the unrestricted group. Click on the Save button to save this change, and then repeat this process for each practice as required. Exit the Practice Maintenance Desktop.



Test Sage Intergy Desktop

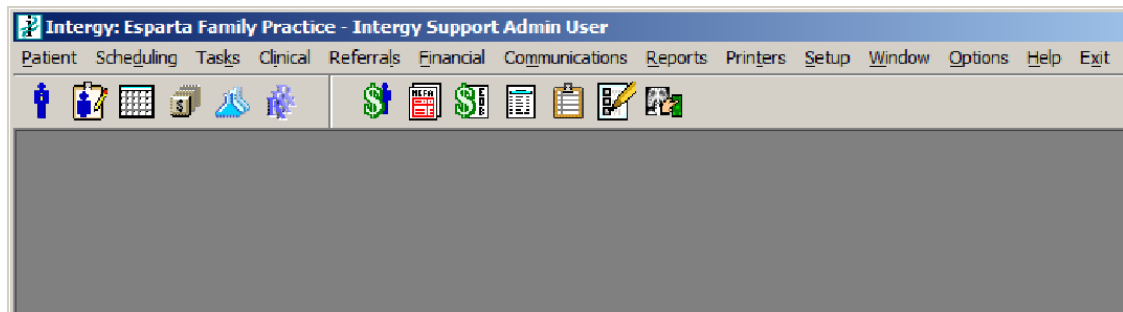
14. It is now necessary to test the new support account and the Sage Intergy installation in general. Select the Sage Intergy application icon from the Sage Intergy desktop folder



The standard Sage Intergy Logon window is displayed. Enter 'support' for the logon name, and use the 'int<Site Code>' password or other configured password. In existing installations, some sites may also use the license code for the support password. In either case, enter the correct password and click on OK to proceed.

The Practice Selection window is displayed. Select on any practice and click on the OK button to proceed.

If successfully configured, the main Sage Intergy application window will be displayed. If you are familiar with Sage Intergy application functions, you may test these at this time. Select the Exit menu to close the Sage Intergy application window.



15. If server backup software is not yet installed, proceed with installation before configuring stand alone application servers or client devices. As a best practice, perform a full system backup of the Sage Intergy database server before implementing other parts of the environment. Refer to Appendix A - Installing Backup Exec for specific information on installation of approved backup solutions and general information on system backup configuration.

Setup of the Sage Intergy backup script as a scheduled task

In previous versions of Sage Intergy, the configuration of the Sage Intergy backup script was a specialized process that was left to the discretion of the installation technician. For Sage Intergy 7.00, all Sage Intergy backup functions are standardized using the script that is included on the installation media. Typically, this batch file will be copied automatically to the C:\Intergy folder on the database server.

Note that this script only creates a Sage Intergy backup which is written to disk storage. A full system backup that includes the operating system and all other data files must be performed separately using a third-party product. Refer to Appendix A - Backup Exec Installation and Configuration for detailed information on installation of the full system backup component.

The Windows Server 2008 task scheduler is used to execute the Sage Intergy Backup script as an automatic process. The task scheduler component of Windows Server 2008 differs significantly from previous versions. For detailed information on configuration and usage of the task scheduler, refer to the Microsoft Technet documentation at the following URL:

<http://technet.microsoft.com/en-us/library/cc727168.aspx>

Customize Backup Script

Manually create C:\IntergyBackup and D:\IntergyBackup directories on the Sage Intergy database server. Open the file C:\Intergy\IntergyBackup.bat with a text editor and note the following lines of text:

```
set BATCH_LOCATION=C:\Intergy
set STAGING_DRIVE=D:
set STAGING_DIRECTORY=%STAGING_DRIVE%\Intergybackup
set USING_2ND_BACKUP=Y
set BACKUP_TWO_DRIVE=C:
set BACKUP_TWO_DIRECTORY=%BACKUP_TWO_DRIVE%\Intergybackup
set KEEP_AI_2ND_BACKUP=Y
set USING_EXTERNAL_STORAGE=N
set EXTERNAL_STORAGE=Z:\MediaBackup

set PRINT_SERVER_NAME=%COMPUTERNAME%

set BACKUP_LOG_FILE=IntergyDBBackup.doc

rem DIAG MODE IS SHIPPED ON TO ALLOW FOR TESTING. SET TO N BEFORE IMPLEMENTING

rem set DIAG_MODE=Y
set DIAG_MODE=N
```

Make the following changes to the batch file before proceeding with scheduling:

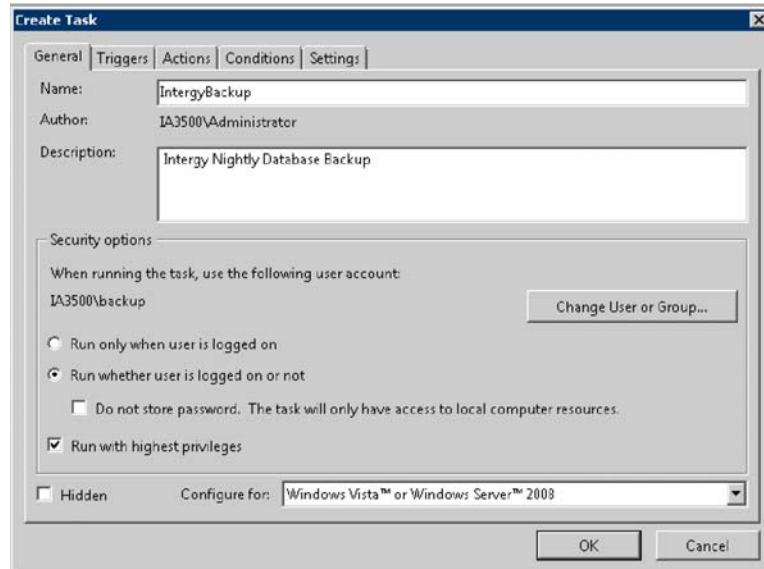
- If the database server is configured using non-standard drive configuration, change the batch location folder and the staging drive letter as needed. Validate all other drive letters and folder names and verify that Sage Intergy database directories are enumerated correctly.
- If the customer site requires the use of an externally connected storage device, such as a Network Attached Storage (NAS) device, set the USING_EXTERNAL_STORAGE parameter to 'Y' and specify the drive and/or folder name in the EXTERNAL_STORAGE parameter.
- Set the DIAG_MODE parameter to 'N' for a server installed in a production environment at the customer site.

Leave all other parameters in the Sage Intergy Backup script at their default settings.

Schedule Backup Task

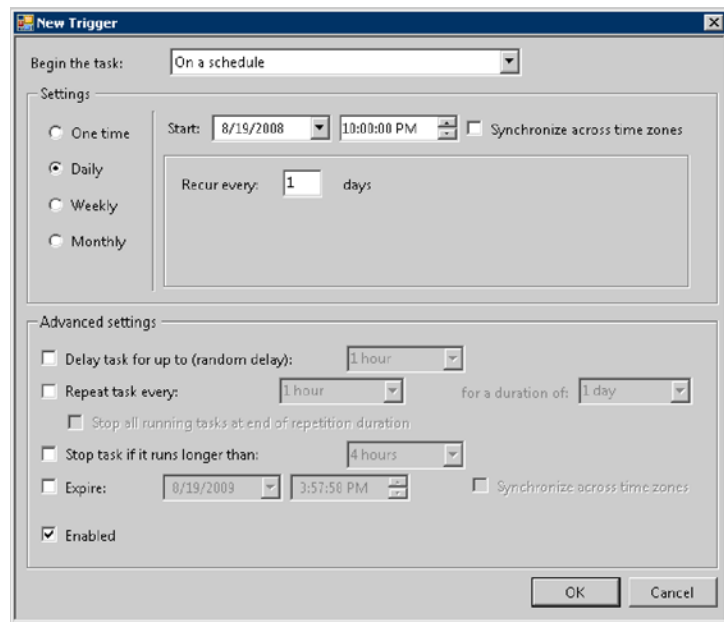
Use the Windows Server 2008 task scheduler to create a scheduled task for the C:\Intergy\IntergyBackup.bat script. Set the file to be executed from the Action tab when

creating a task. Use the following screen shots as guides for configuring the following parameters:



When creating a task, set the following general parameters:

- Set the local Backup account as the user account
- Run whether user is logged on or not.
- Run with highest privileges
- Configure for Windows Vista or Windows Server 2008



When creating a task, set the following trigger parameters:

- Daily schedule starting at 10:00 pm on the current day. Change this time as necessary to suite the operating hours of the customer site.
- Recurs every day (set field to value 1)
- Enabled checkbox is selected

As a best practice, test the operation of the script before any further database changes are made. Observe the Windows Server application log and the Sage Intergy logs for any errors that must be resolved.

For detailed information on operation and troubleshooting of the Windows task scheduler, refer to the Microsoft documentation at the following URL:

<http://technet.microsoft.com/en-us/library/cc721871.aspx>

Next Steps

All new Sage Intergy 7.00 installations will include the Quality Measures Edition of Sage Practice Analytics. In all cases, this installation requires a separate, dedicated computing device to support this application. Refer to the Sage Practice Analytics Install Guide for detailed information on installation of the Sage Practice Analytics server components.

In most environments, after successful installation of a Sage Intergy database server and correct configuration of Sage Intergy settings, you may proceed to installation and configuration of Sage Intergy clients as described in Chapter 3. However, if you are installing an N-tier environment that requires additional application servers you must proceed to Chapter 4 and follow the instructions for component configuration described therein.

If you have selected Sage Intergy services for installation on the database server, you should also review the Sage Intergy 7.00 installation manual appendix for each service or component. This includes TMS Import, DDS, and Sage Intergy Storage Server.

Chapter 3: Client Installation

For day-to-day operation of the Sage Intergrity desktop, the Sage Intergrity client application components must be installed. Typically, the client is installed on desktop workstation computers for use by employees of a medical practice. Also, a client is typically installed on the Sage Intergrity database server for troubleshooting and testing purposes.

More complex computing environments may include installation of the Sage Intergrity client in a thin-client implementation, as described in Chapter 9. Also, Sage Intergrity client workstations may be used to distribute the installation of separate Sage Intergrity service components, such as DDS or the Remote Print Service. Instructions for installation of these specialized clients may not apply to all customers, so be aware of the serialized components for the customer site and the purchased components as listed on the sales order.

The instructions in this section apply to an environment where the Sage Intergrity database server is already configured and installed. Do not proceed with Sage Intergrity client installation until the Sage Intergrity database server and other related components are correctly installed.

Note that new installation is permitted only on specific platforms. Refer to the Sage Intergrity 7.00 System Requirements document for detailed information on compatible hardware and operating systems.

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Typical Installation Settings

The following table lists typical installation settings used for the Sage Intergy clients in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Base Workstation Configuration	Workstation Name	Interger01, Interger02, Interger03, etc Join 'Interger' Domain or existing customer site domain
	Printing	Configure default printer for All Users default Windows logon profile
	Microsoft Office Installation	Office installation required for Transcription Writer or DDS
Browser and Printer configuration for Clinician	Java Runtime Environment installation	Version 6 or higher
	Label Printer	Configure a default page size on Printers and Faxes control panel
	Internet Explorer	Advanced Printing Options - Print background colors and images Advanced Security Options - Do not save encrypted pages to disk, Empty Temporary Internet Files when browser is closed Security Options - Add https://clinician.emdeon.com as trusted site
Media Installation Share	Shared Folder Location	\\IntergerServer\IntergerCD
	Permissions	Everyone - Read Only
Sage Intergy Setup Options	Preferred Setup Type	Client
	DB Server Name	IntergerServer
	Service Name	Interger-DB
	Port	2500
	Destination Folder	C:\Interger
Additional Sage Intergy Applications	Transcription Writer Sage Intergy EHR Standalone IEHR Sage Intergy Enterprise	Select checkboxes as needed. See detailed instructions for information on Microsoft Office prerequisite for Transcription Writer. ISS is not normally installed on workstations.
Sage Intergy EHR Settings	Clinical Server	IntergerServer (server network name)
	Data Port	60001
	Secure Proxy Port	60004
	RMS Site ID	Blank (required for remote or WAN client without VPN connection)

Drive letters and directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

New Windows Sage Intergy Client Installation

Obtain the latest Sage Intergy installation media and hotfix downloads before proceeding with any installation. Installation of a Sage Intergy client is less complex than installation of the database server.

Extra Steps for Terminal Services Installation

Installation of the Sage Intergy client using Terminal Services in application server mode requires Windows Server 2003 or Windows Server 2008. Also, extra configuration steps are required. Refer to Chapter 9 for specific information on configuring the Sage Intergy client for use with Terminal Services.

Automated Upgrade Distribution

A Sage Intergy customer site which is running RMS and is correctly configured is able to receive an automatic upgrade package from the RMS parent service at Sage. This transmission will place a Zip archive in the directory C:\Program Files\RMSS\Downloads that is automatically downloaded by correctly configured Sage Intergy workstations.

For more information on manual RMS configuration, see the RMS Configuration section of the Sage Intergy Technical Process Reference Appendix on page 12-18.

Base Windows Workstation Configuration

This section covers the configuration of the Windows workstation settings for Sage Intergy clients. For more information on the installation of Windows XP, refer to the Microsoft Knowledgebase articles at <http://www.microsoft.com/windowsxp/using/setup/winxp/install.mspix>. For more information on the installation of Windows Vista, refer to the Microsoft installation reference article at <http://www.microsoft.com/windows/windows-vista/quick-start/default.aspx>. For more information on the installation of Windows 7, refer to the Microsoft installation reference list at <http://windows.microsoft.com/en-us/windows7/Installing-Windows-recommended-links>.

Workstation naming and domain membership

Configure or verify the computer name and computer description. Workstations should be called 'Intergy01' with an incrementing number, and the description field should contain the name of the physician or the name of the practice. If installing Sage Intergy client workstations in a customer site with an existing computing environment, follow the customer's standards for naming and description if applicable.

Printing setup

Field technicians should connect and install printer objects as part of the default Windows logon profile on newly configured workstations. For information on how to set up shared and networked printers, refer to the Microsoft Knowledgebase article at <http://www.microsoft.com/windowsxp/using/setup/hwandprograms/printfaxscan.mspix>

Transcription Writer and Document Delivery Service

To use the Transcription Writer or the Document Delivery Service components of Sage Intergy, Microsoft Word must be installed on the workstation or server. Microsoft Office 2003 with Service Pack 2 or higher is required for successful implementation of the Transcription Writer. For detailed information on the installation of Microsoft Word, refer to the Microsoft Office Resource Kit page at <http://office.microsoft.com/en-us/ork2003/CH011480631033.aspx>

Workstation Configuration for Clinician

To support the Clinician functions of Sage Intergy EHR, third-party application components must be installed and configured on client workstations before the Sage Intergy client is installed. Make sure that the following installation and configuration steps are completed on all client workstations intended for use with Sage Intergy EHR:

MeadCo ScriptX Installation or Upgrade

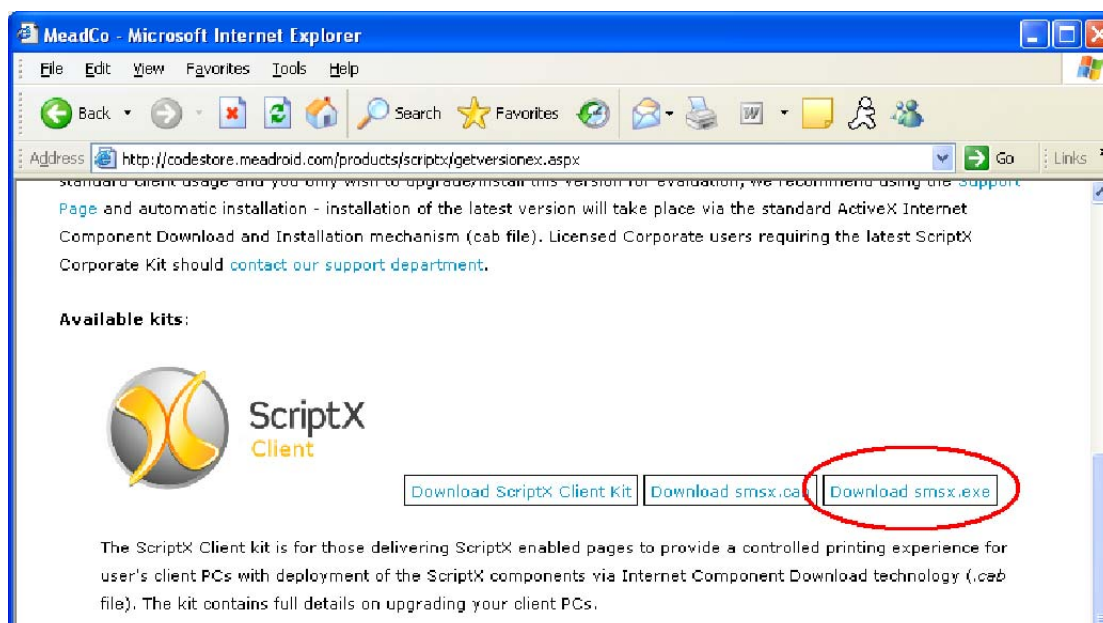
All computers where the Sage Intergy desktop is operated should have the MeadCo ScriptX installation package executed. Note that this installation process requires the use of a logon account with local administrator rights.

Open Internet Explorer on the computer where Clinician will be used, and browse to the following URL to access the MeadCo Script installation package:

<http://codestore.meadroid.com/products/scriptx/getversionex.aspx>

When the MeadCo web page is displayed, scroll to the ScriptX Client download section and click on the 'Download smsx.exe' link. When prompted, either run the installation package or

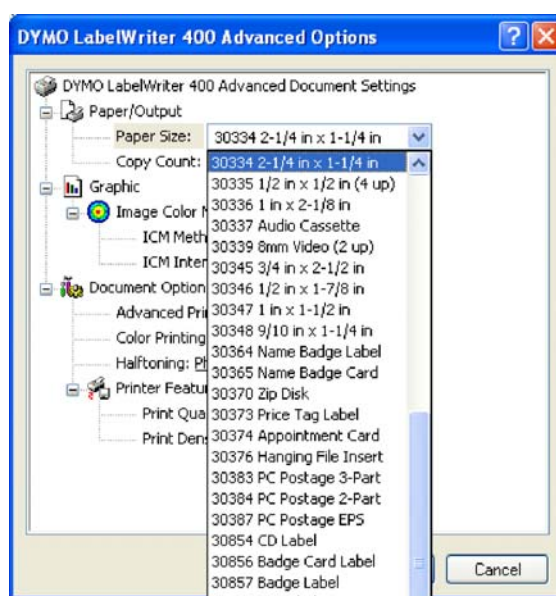
save the file to the workstation. If you save the file to the workstation you will need to run the saved file to install the ScriptX Client before continuing to the next step.



If an error message is displayed during installation, verify that the account you are using to install the ScriptX package has local administrator rights on the client computer.

Label Printer Default Page Size

Clinician allows configuration of different page and label types. However, this function requires that a default page size be configured for any label printer or roll printer installed for use with Clinician. This setting must be applied on the Printers and Faxes control panel in Windows, for each printer that is intended to be used with Clinician.



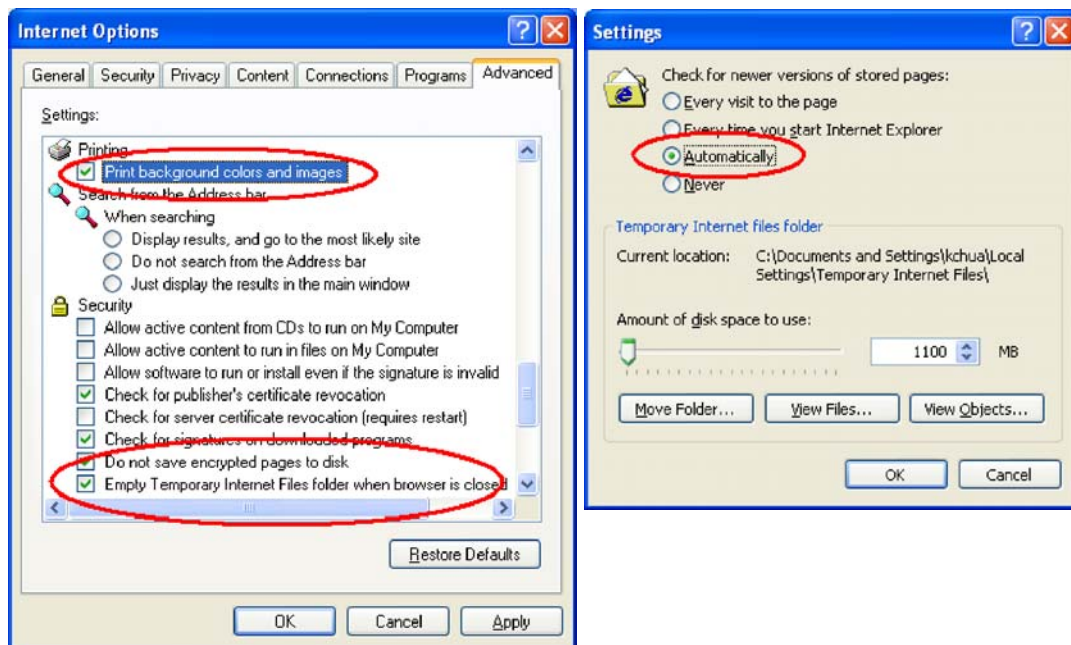
In this example, a Dymo Labelwriter 400 is installed, which uses a default label size of 2.25 inches by 1.25 inches. Note that for all printer types, this is the minimum size required for label printing. Configure the specific paper size appropriately for type of label that is installed for use with the Sage Intergy EHR client workstation.

Internet Explorer Configuration

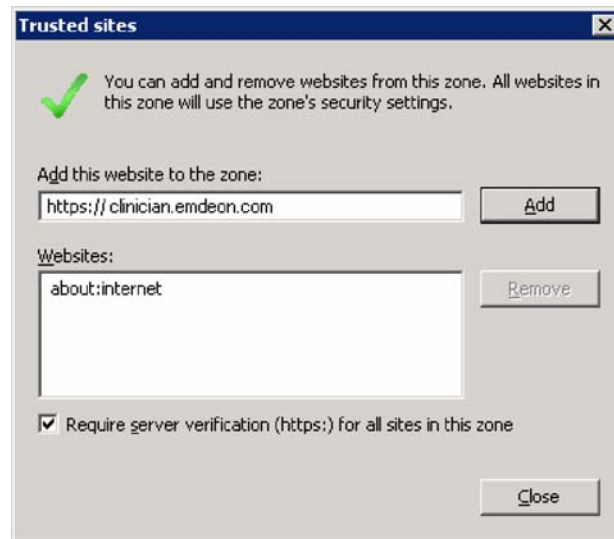
To support printing of customized graphical elements, usage of Clinician requires specific options of Internet Explorer to be configured:

- Advanced Printing Options - Select the option to print background colors and images
- Advanced Security Options - Select options “Do not save encrypted pages to disk” and “Empty Temporary Internet files when browser is closed”.
- Printer page setup - Set all print margins to one-fourth inch (.25”) with no header or footer text.
- Temporary Internet File Settings - Check for new files automatically.
- Security Options - Add https://clinician.emdeon.com as a trusted site.

Displayed configuration options may differ depending on the version of Internet Explorer installed in the customer environment.



After changing settings for printing, security, and temporary files, remember to add <https://clinician.emdeon.com> as a trusted site.



Refer to the Sage Intergy 7.00 System Requirements document for specific information on the browsers that are supported for use with the Clinician functions of Sage Intergy EHR.

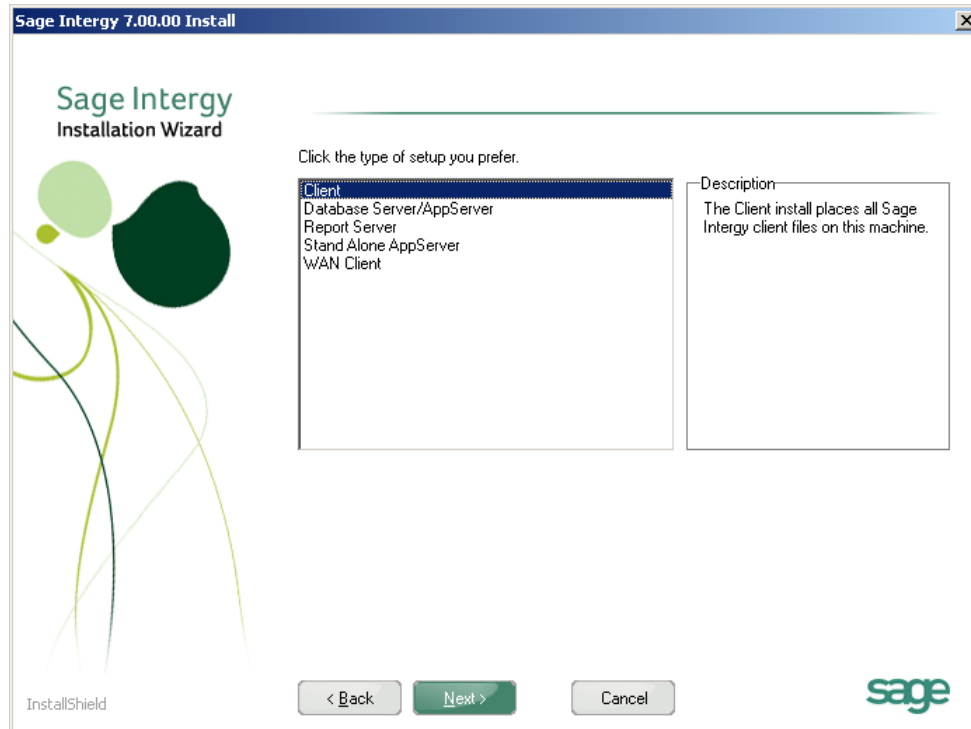
Media Installation

The Sage Intergy 7.00 DVD installation media may be copied to a shared folder on a single server. The preferred location for this share is the D: drive of the Sage Intergy Server. Use the share name \\IntergyServer\IntergyDVD and install from this location instead of physical media for installation without using the disk. If you are using a shared folder to install any Sage Intergy component, you may disregard instructions related to disk insertion.

1. Insert the Sage Intergy for Windows installation DVD media in the workstation. If the Autorun function is not invoked, manually open the 'setup.exe' file on the root of the DVD directory. The Sage Intergy Setup window will be displayed, and you should click on the Next button to proceed.
2. The Sage licensing agreement window is displayed next. If required for the customer, connect a printer and use the Print button to produce a hardcopy. Click on the Yes button to agree to the license and to proceed to the next step.

Select Startup Option

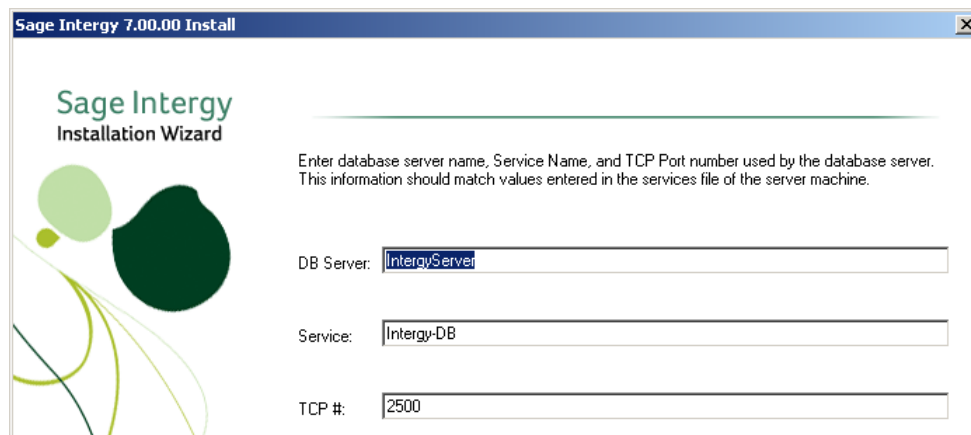
3. The setup options window is displayed next. The default choice is to install the client only. From the menu, select the 'Client' item and click on the Next button to proceed.



Note the other menu items available for installation here. The Database Server/Appserver installation is executed on the primary Sage Intergy database server and should already be completed. Stand Alone AppServer installation may only occur after one or more database servers are installed first. A Report Server is used only in environments with WAN clients.

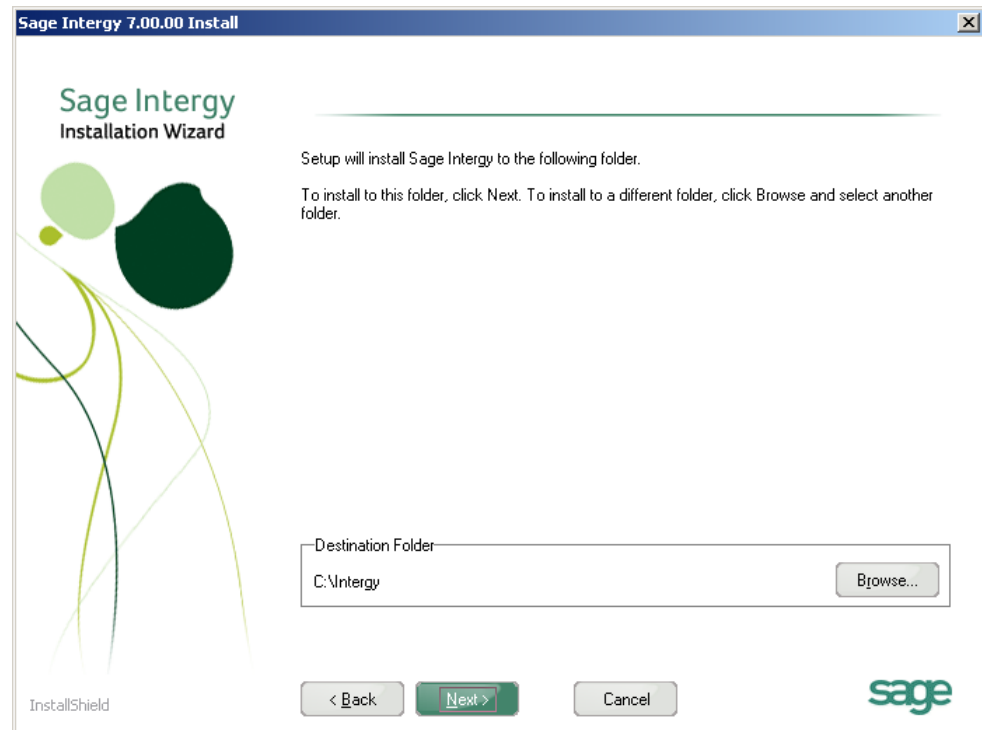
Enter Services Configuration Data

4. After clicking on the Next button, the services configuration window is displayed. Make sure that the correct server name is entered and that the same TCP port is set for both the application server and the client. Click on the Next button to proceed after making any necessary changes.



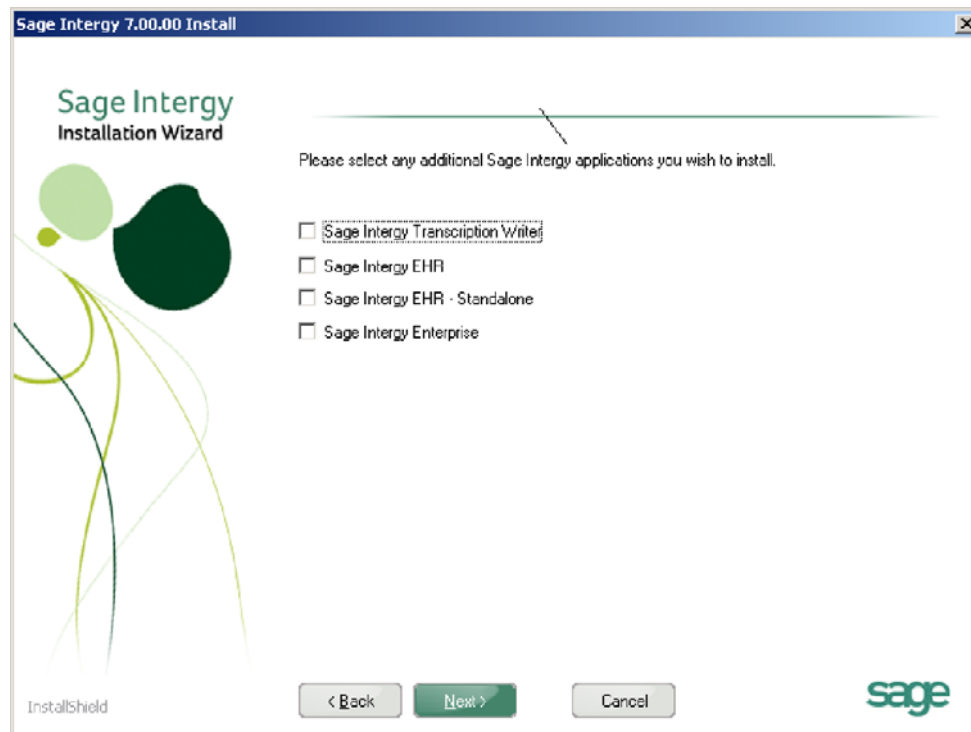
Set Destination Folder

5. The destination folder window is displayed. The preferred location for Sage Intergy application components is the C: drive in a top-level folder. If necessary, change the destination folder before clicking on the Next button to proceed to the next step.



Select Additional Sage Intergy Applications

6. The additional applications window is displayed. At this window, you may elect to install other Sage Intergy components as needed by the customer.



The following options are available:

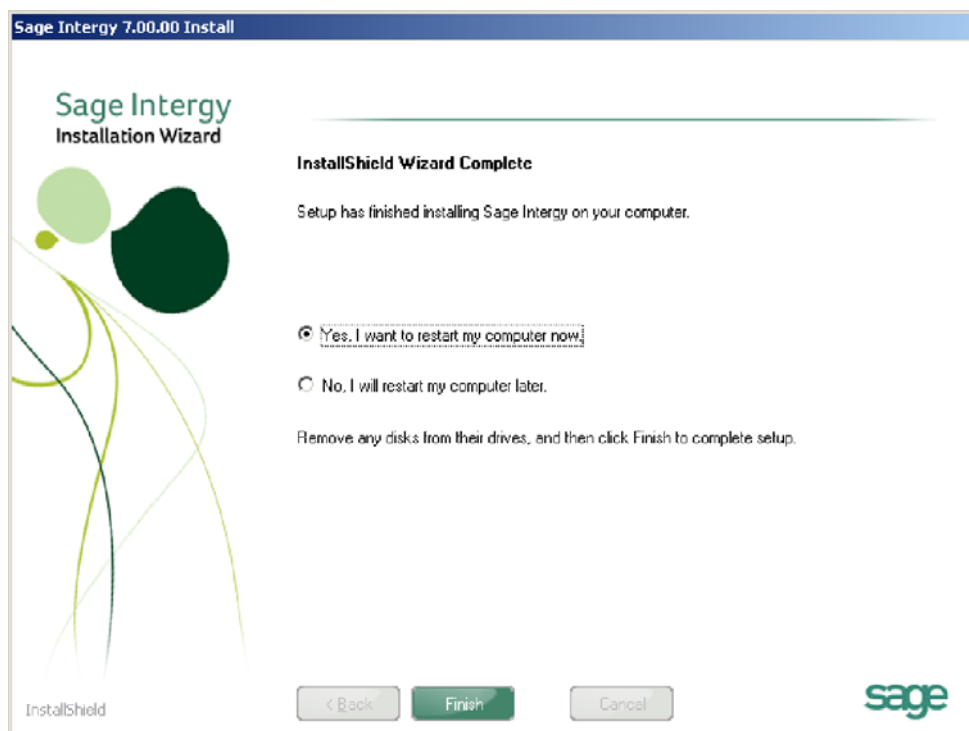
- Transcription Writer - For use in customer sites where transcriptions processed. Microsoft Word must be installed before Transcription Writer may be implemented.
- Sage Intergy EHR - The Electronic Health Records component of Sage Intergy, installed when using Sage Intergy as the main practice management software.
- Sage Intergy EHR Standalone - The Electronic Health Records component of Sage Intergy, but installed for use with a different practice management application. This installation option creates application shortcuts with different names and startup options to support use with Sage Medical Manager or another practice management system.
- Sage Intergy Enterprise - The single-desktop application used for managing multiple practices. This require additional serialization and is not selected by default.

Note that all components may be installed, but some may not be available to the customer without the appropriate licensing and serialization action. Mark the checkboxes for the component installation required for this customer and click on the Next button to proceed to the next step.

Media Installation Continues

7. A confirmation window is displayed, showing all of the options and features chosen for installation. Review this list carefully before proceeding, and make sure that selected components match the requirements of the customer site. Click on the Next button when ready to proceed.
8. You will observe status screens for installation of each of the following components:
 - Microsoft .Net Framework

- Progress OpenEdge Application Components
 - ODS Tools
 - Sage Intergy Client Patch
 - Ultia Service (status command console windows)
9. If the Sage Intergy EHR installation option is selected for a server, the client installation portion will automatically use the same server information entered for the regular Sage Intergy client. No interaction is required during installation of the Sage Intergy EHR application components on a client workstation.
 10. Sage Intergy installation is complete when the completion window is displayed. Remove the Sage Intergy for Windows installation disk. Because this is the first Sage Intergy database server, select the Yes radio button option and click on the Finish button to reboot the server.



Apply F1 Field Help Fix

After all other Sage Intergy client components are installed successfully, it is necessary to apply a specific hotfix to the client workstation or server in order to resolve a bug with help functionality. This step is required only for Sage Intergy client installations on Windows Vista, Windows 7 or Windows Server 2008.

Installation of the F1 Field Help Fix requires installation of a software update and modification of a registry key. For detailed information on installation of this hotfix, refer to the Microsoft Knowledgebase article at the following URL:

<http://support.microsoft.com/kb/917607>

Software Download and Update

To download the help file software update for Windows Server 2008, use the following URL:

<http://go.microsoft.com/fwlink/?LinkId=114216>

To download the help file software update for Windows Vista, use the following URL:

<http://go.microsoft.com/fwlink/?LinkID=82148>

To download the help file software update for Windows 7, use the following URL:

<http://go.microsoft.com/fwlink/?LinkId=166421>

Save the file to a temporary directory and double-click on the file in Windows Explorer to execute it. Accept the license terms when prompted and allow the installation to proceed. For all operating systems, make sure to distinguish between downloads for 32-bit and 64-bit operating systems and use only the correct update package.

Registry Change

Use the following procedure to modify the registry:

- 1.** Log on by using an administrator account.
- 2.** Click the Start button and type 'regedit' in the Start Search box, and then click regedit in the Programs list. If prompted for an administrator password, type the password and click Continue.
- 3.** Locate the following registry subkey, and then click it:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WinHelp
- 4.** On the Edit menu, point to New, and then click DWORD (32-bit) Value.
- 5.** Type 'AllowProgrammaticMacros' and then press ENTER.
- 6.** On the Edit menu, click Modify.
- 7.** In the Value data box, type 1, click Hexadecimal in the Base area, and then click OK.
- 8.** Exit Registry Editor by closing the window.

Sage Intergy EHR PDA Client Installation

Sage Intergy EHR PDA is the Windows CE version of the EHR client application. It is intended to be installed on network-enabled handheld computing devices using Pocket PC or Windows Mobile operating systems. On devices where EHR PDA has not yet been installed, installation is a manual process that requires user interface input.

Note that not all handheld computing devices are compatible with EHR PDA. Refer to the Sage Intergy 7.00 System Requirements document for information on what devices are supported.

These instructions assume wireless network connectivity is already successfully configured for the handheld computing device. Installation of EHR PDA may be performed by any user of the Sage Intergy EHR system, or by technical support personnel.

Copy Install Archive to Mobile Device

Installation of EHR PDA requires a user or technician to copy a CAB file to local storage on the Pocket PC or other handheld computing device. In a typical computing environment, you will obtain this file from the primary Sage Intergy database server in the following location:

C:\Intergy\Code\AS\Ultia\Ultia.CAB

As a best practice, copy this file to the 'My Documents' directory on the handheld computing device using Activesync or a removable storage card. For detailed information on the operation of Activesync, refer to the Microsoft product documentation at the following URL:

<http://msdn.microsoft.com/en-us/library/aa913903.aspx>

If you are using desktop workstations where Microsoft Windows Vista is installed, note that Activesync is replaced by the Windows Mobile Device Center (WMDC) application. For detailed information on the operation of the WMDC application, refer to the Microsoft support documentation at the following URL:

<http://support.microsoft.com/kb/931937>

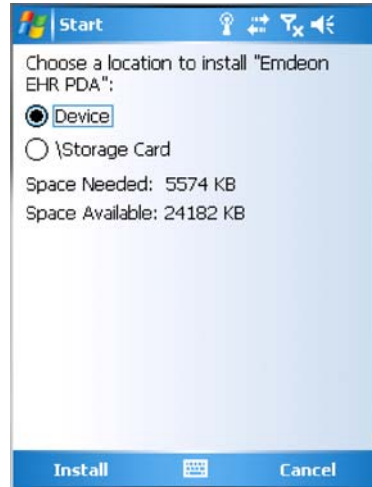
Execute Installation Program

After successfully copying the file to local storage, you must execute the installation program locally on the handheld computing device. If Activesync or WMDC was used to transfer the installation archive file, disconnect the device from the PC cradle or connection cable before proceeding with this part of the installation.

On the handheld computing device, open the Windows Mobile File Explorer and browse to the location of the Ultia.CAB file.



Tab the Ultia.CAB file and observe installation status bar being displayed. After a few moments, an installation location prompt is displayed.



As a best practice, always select the 'Device' option so that EHR PDA is installed directly into the handheld computing device memory and not in removable storage. Click on the Install button at the bottom of the screen to proceed with installation.

The installation status bar is displayed again. After installation is completed, the EHR PDA login screen is displayed.



Because connection parameters are not yet displayed, you will not be able to log in. Click on the Exit button to close the EHR PDA application.

Configure Connection Settings

After successful installation, it is necessary to configure the EHR PDA client application to use the correct server name and RMS site ID number. Unlike the Windows desktop SIEHR client application, you are not automatically prompted to enter these settings during installation.

To configure connection settings, open the EHR PDA Settings application from the Program group list on the handheld computing device:



The EHR PDA Settings screen is displayed.



Configure the following settings with the appropriate values for each customer environment:

- **Data Server** - Use the DNS name or numeric IP address of the primary Sage Intergy database server. In a typical installation, use the value 'Sage IntergyServer'. For EHR PDA units installed as WAN clients, use the numeric IP address of the Internet address of the main customer site.
- **Port** - Use 60001 for a typical installation.
- **Connect Via Internet** - Tap this field to choose one of several values. Use 'Never' for EHR PDA units installed on the same network as the Sage Intergy database server, and use 'Always' for units installed as WAN clients.
- **RMS Site ID** - Enter the numeric RMS Site ID value in this field.

Leave all other settings at default values. Tap on the OK button to save settings and exit the EHR PDA Settings screen.

After completing successful installation, test EHR PDA connectivity and verify correct operation.

Internet Zone PDA Clients

To support the use of EHR PDA clients that are connected only on the Internet, and not on the customer site's local network, port redirection must be configured. The primary Sage Intergy database server must receive requests on TCP ports 60001 and 60004 that are directed to

the customer's Internet-facing IP address. As a best practice, this address should be static, and not dynamically assigned by the customer's Internet service provider.

For EHR PDA clients connecting using the Internet Zone feature, configure the following settings with the appropriate values for each customer environment:

- **Data Server** - Use the numeric IP address of the external-facing Internet address of the main customer site.
- **Port** - Use 60001 for a typical installation.
- **Connect Via Internet** - Tap this field to choose one of several values. Use 'Always' for units installed as WAN clients.

Note that all WAN IEHR clients, including EHR PDA devices, use RMS to validate the Internet address of the Sage Intergy database server. For new installations of Sage Intergy, technicians must connect to RMS to add the customer's external-facing IP address as an authorized EHR connection point. Refer to page 12-21 for information on connecting to RMS and configuring parameters related to registration of Sage customer sites.

Sage customers may have many different types of network devices installed for Internet connectivity. Refer to vendor documentation for specific instructions on how to configure port forwarding.

Sage Intergy On Demand PDA Clients

When implementing EHR PDA clients in environments where Sage Intergy On Demand (IOD) is implemented, configure the same values used for Internet Zone PDA devices. For versions 6.00 and higher, Sage Intergy On Demand allows direct handheld device connectivity to the database server without additional software installation in the customer site.

Note that only the numeric IP address is supported for connections to Sage Intergy On Demand servers at this point. Always use the numeric, statically assigned IP address for EHR PDA connections to Sage Intergy On Demand servers.

Note also that the separate configuration of RMS is required to add the Sage Intergy On Demand IP address as an authorized EHR connection point.

Next Steps

In most environments, successful installation of Sage Intergy clients is the last step. However, if you are installing an N-tier environment that requires additional application servers you should proceed to Chapter 4 and follow the instructions for component configuration described therein.

Chapter 4: N-tier Installation

Sage Intergy customers whose computing environments serve more than 350 simultaneous client connections require installation of Sage Intergy components on multiple servers. This method of implementing Sage Intergy is referred to as N-tier, due to the multiple tiers of client-server connectivity and access.

The instructions in this section apply to an environment where a Sage Intergy database server has already been installed. Do not proceed with N-tier component configuration or installation of a stand alone application server until the database server is successfully implemented and serialized.

Typical Installation Settings	.4-2
N-tier Environment Overview	.4-2
N-tier Server Installation	.4-3
Installing Progress Name Server Load Balancing	
for N-tier environments	4-3
Placing Sage Intergy in Maintenance Mode	4-4
Media installation	4-4
Other Component Installation	4-6
Installing the Stand Alone Application Server	4-7
Ship Plan Database Connectivity Configuration	4-10
Set Ship Plan Database Connection Parameter	4-10
RxDUR Configuration	4-12
Create Shared Folders	4-12
Set Prescription System Parameters	4-13
Card Scan Configuration	4-15
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Configure Sage Intergy Storage Devices	4-17
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Typical Installation Settings

The following table lists typical installation settings used for an N-tier environment in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Progress Name Server Load Balancing	Destination Directory	C:\Intergy\ProRT
	Working Directory	C:\Intergy\logfiles
	AdminService logon	'IntergyService' instead of localsystem
Stand Alone Application Server Installation	Sage Intergy Installation Preferences Prompt	StandAloneAppServer (from selection list)
	Name Server Prompt	Enable Load Balancing (radio button)
	Destination Folder	C:\Intergy
	Temporary Folder	C:\Intergy\Temp
	AdminService logon	'IntergyService' instead of localsystem
Ship Plan Database Connectivity Settings	System Configuration base parameters	Plan Database Connection String: -H <Sage Intergy Server Name> -S 2502
RxDUR Settings	New Shared folders with read-only access for Everyone group	C:\Intergy\DURUpdate shared as \\IntergyServer\DURUpdate
		C:\Intergy\ DURLocation shared as \\IntergyServer\ DURLocation
	System Configuration - Prescriptions>System Parameters	Solution Installation Directory: \\IntergyServer\IntergyDURLocation
		CD Rom Drive: \\IntergyServer\Sage IntergyDURUpdate
Card Scan Settings	Shared Folder for Storage Location	C:\Intergy\Images shared as \\IntergyServer\Images
	System Configuration - Storage Device	Code D - Storage Location set to \\IntergyServer\Images

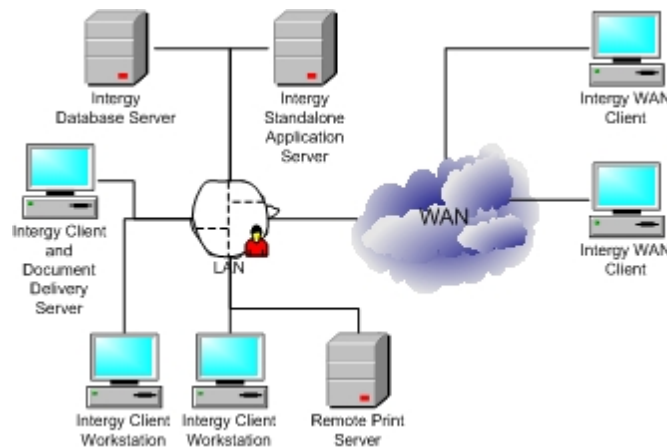
Drive letters should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

N-tier Environment Overview

An N-tier environment may be briefly described as a distributed server solution. Components of Sage Intergy which can be separated are each installed on dedicated hardware to create a more scalable and more flexible installation.

In the current version of Sage Intergy, it is possible to install application components on multiple servers to accommodate large numbers of clients, or geographically dispersed clients who are using WAN connectivity. It is also possible to distribute specific server functions to separate servers, in order to offload database or client processing workload. Deploying multiple application servers may also be less expensive than installing one large, powerful application server. All field engineering and software installation specialist personnel should be familiar with the terminology and methodology of the N-Tier architecture.

A complex Sage Intergy installation might include some or all of the following illustrated components:



In this example implementation of Sage Intergy, there is a separate application server so that large-scale database operations are not impacted. There is also a Remote Print Server so that frequent print jobs do not affect the client PC operation. Note that one of the clients on the LAN is also a Document Delivery Server, which is used for printing or faxing of transcription documents. Note also that there are Sage Intergy clients connected via an external WAN.

For a detailed overview of the N-Tier architecture, refer to the Sage Intergy System Requirements document.

N-tier Server Installation

A N-tier environment is characterized by the presence of at least one stand alone application server. This refers specifically to a second installation of Sage Intergy that is designed to distribute the authentication of client connections. A stand alone application server does not include a separate installation of a database.

The installation of a stand alone application server must be preceded by the installation of Progress name server load balancing on the Sage Intergy database server, as described on the following pages.

Installing Progress Name Server Load Balancing for N-tier environments

Before installing standalone application servers, it is necessary to install the load balancing component of the Progress Name Server. This component is installed on the database server only, and requires an additional Progress license outside of standard Sage Intergy serialization.

Make sure that the following prerequisite tasks are completed before proceeding:

- Obtain the Progress serial number and control code data for the Name Server Load Balancing option from the Sage sales organization. This is a licensing component that is separate from Sage Intergy serialization and will be unique to each customer site.
- Obtain Progress application update files as necessary. This will include the Progress Service Pack update packages, which is also located on the Sage Intergy installation media.
- Make sure that Sage Intergy database server installation is successfully completed. On the Sage Intergy database server, make a backup of the C:\Intergy\ProRT\properties folder. Typically files in this directory are copied to C:\Intergy\ProRT\propertiesbkup for consistency among installations. This folder will be approximately two megabytes in size and will have several subdirectories.
- Change the service account used to operate the AdminService Windows service. Set the logon account to the 'IntergyService' account instead of the local system account. This account is normally a domain account to permit network authentication, but may also be configured as a local account with the same name on all servers in an environment without a domain controller. This change should be applied to the database server as well as all stand alone application servers, since the local system account typically does not have access to network shares. For more information on configuration of service startup parameters, refer to the Microsoft Technet article at <http://technet.microsoft.com/en-us/library/cc755249.aspx>

Placing Sage Intergy in Maintenance Mode

It is necessary to place the Sage Intergy Database in maintenance mode before proceeding with changes to the Progress database. The following operations will be performed:

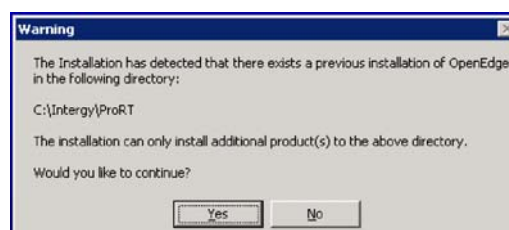
- Schedule System Maintenance period from System Administration Desktop
- Manually shut down HL7 processes
- Manually shut down Progress database

For detailed instructions on Maintenance Mode for Sage Intergy, refer to the Sage Intergy Technical Process Reference in Appendix A.

Media installation

If you are using a shared folder to install any Sage Intergy component, you may disregard instructions related to disk insertion and use the shared folder location instead.

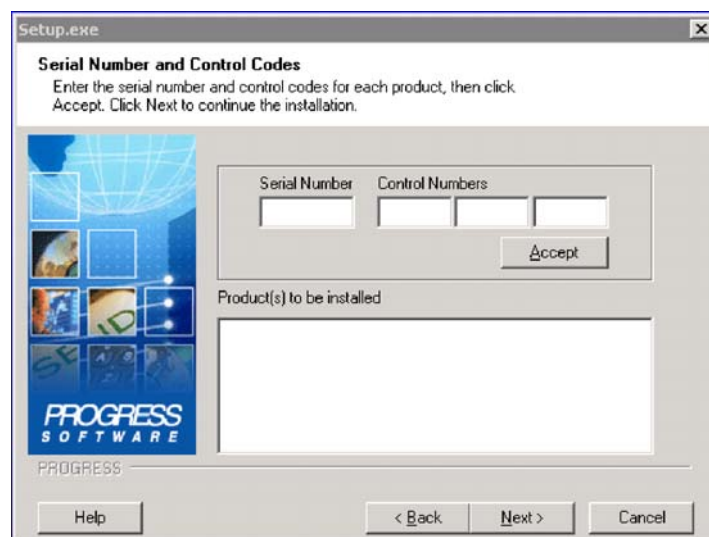
1. Insert the Sage Intergy for Windows installation DVD in the server. The Autorun function may be invoked, and the Sage Intergy Setup window will be displayed. Click on the cancel button to end the Sage Intergy setup.
2. Open Windows Explorer and browse to the Sage Intergy DVD or the Sage Intergy installation shared folder. Open the X:\ProgressInstall directory and run the setup.exe executable located there.
3. A warning window is displayed.



This window will be displayed both for new installations of Sage Intergy 7.00 and upgrades from previous versions. Note carefully the name of the displayed directory. Click on the Yes button to proceed to the next step only if the 'C:\Intergy\ProRT' directory is displayed in this window. If any other directory name is displayed, click on the No button and do not proceed with further installation. Contact Sage support for assistance with a manual upgrade procedure.

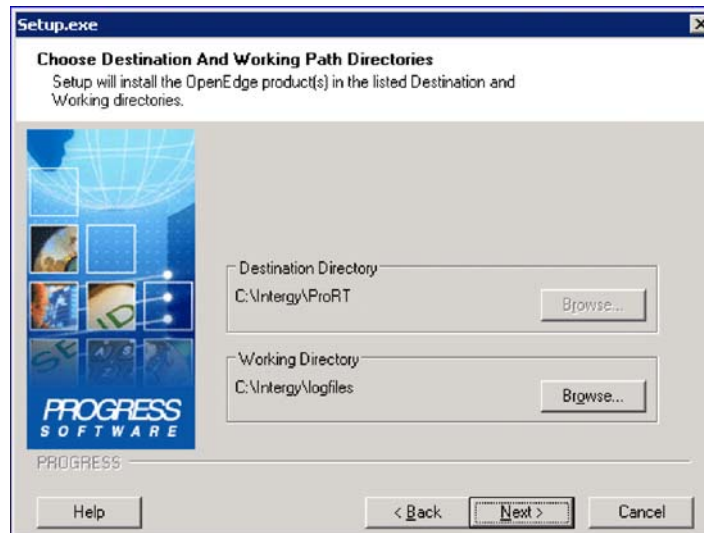
If this warning window is not displayed, installation of the Progress Name Server Load Balancing component may not proceed correctly. It will therefore be necessary to enter the installation directory manually immediately after entry of serial numbers and control numbers, as described in step 6.

4. The Progress Software installation welcome screen is displayed. Click on the Next button to proceed to the next step.
5. The serial number and control codes window is displayed.



Enter the serial number and the control code numbers that were provided by the Sage sales organization. These are alpha-numeric strings and are not case sensitive, and the three control code numbers may be entered in any order. After clicking on the Accept button, the Product(s) to be Installed list will display "NameServer Load Balance" as one of the pending installation items. Click on the Next button to proceed to the next step.

6. The Choose Destination and Working Path Directories window is displayed.



Make sure that the Destination Directory field is specified as 'X:\Intergy\ProRT' and that the Working Directory is specified as 'X:\Intergy\logfiles' before proceeding. The Progress Name Server Load Balancing components must be installed in the existing primary Sage Intergy database directory on the appropriate drive for correct operation. If necessary click on the Browse button for each directory and make changes as required.

7. The Summary window is displayed. Review the list of selected options and click on the Next button to proceed with installation. While installation progress is displayed, you may observe that a pop-up window is displayed prompting you to register the .db file extension and the .cfg file extension. Click on the Yes button to register the file extensions and continue with setup.
8. When installation is complete, the Setup Done window is displayed. Click on the Finish button to close the Progress Installation application and proceed to the next step.
9. Before proceeding to installation of the Stand Alone Appserver components, disable the OpenEdge Admin Service in the Windows services list. Observe that after installation of the Progress Name Server Load Balancing components, two separate Windows services are now installed on the Sage Intergy database server. One has the name 'Intergy Admin Service' and the other has the name 'OpenEdge Admin Service'. Use the standard Windows Services control panel to disable the OpenEdge Admin Service and prevent it from starting under any circumstance. Do not disable the Intergy Admin Service.

Other Component Installation

To complete installation of Progress Name Server Load Balancing, other components must now also be installed on the Sage Intergy database server in this order:

- Progress Service Pack 10.2B03

The Progress 10.2xxx Service Pack is executed from disk 1 of the Sage Intergy installation media using the filename X:\ProgressInstall\Patch\Setup.exe and requires no special information or input.

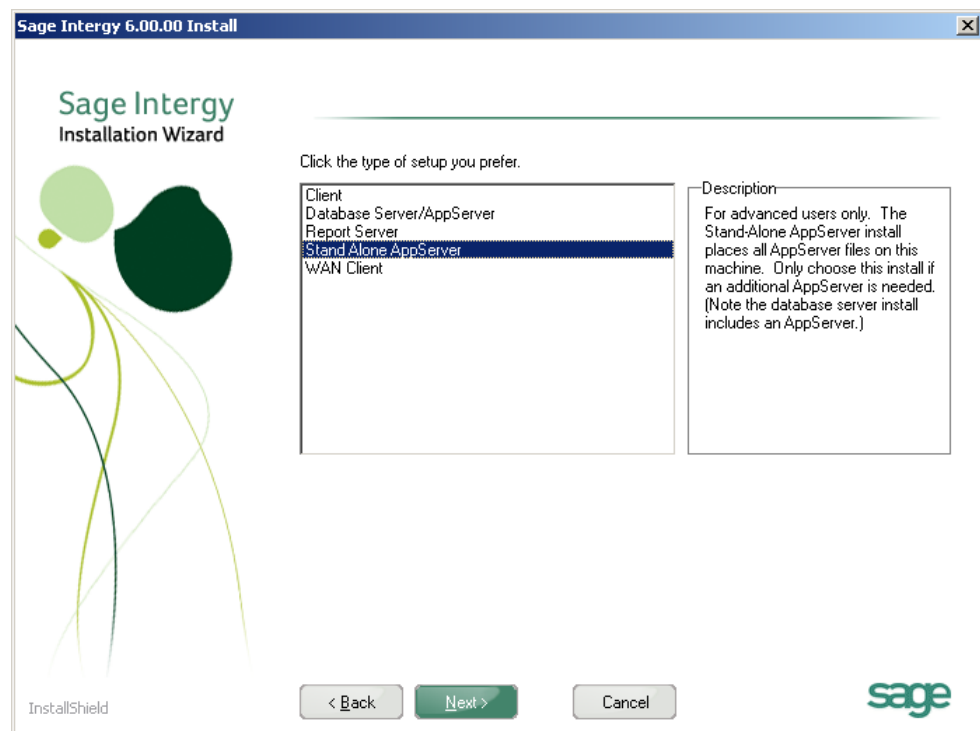
When installation of these components is complete, delete the file X:\Intergy\ProRT\bin\splashscreen.bmp and reboot the Intergy database server. After the reboot has completed successfully, open the Database Administration window and ensure that the Progress database is started successfully. Check the Windows logs for any

Application or System errors which may have occurred during the upgrade, and start the local copy of Intergy using the Support account.

Installing the Stand Alone Application Server

A Stand Alone Application Server is a separate computing device from the database server, and is intended to facilitate distribution of the processing of user logons between several different servers. Installation is very similar to the installation of the Sage Intergy database server. Specific exceptions are noted below.

1. To install the stand alone application server, insert disk 1 of the Sage Intergy Windows installation media. If you prefer, you may also copy all five disks of the Sage Intergy installation media to a shared folder on the server. In either case, run the default install application. When the Setup Type Selection window is displayed, highlight the 'Stand Alone AppServer' menu item and click on Next to continue.



2. The Database Server Connection window is displayed. Here you should enter the hostname of the server where the default Sage Intergy database was installed in the

previous step. If you used default settings, this server will be called 'Intergyserver.' Click on the Next button to proceed to the next step.

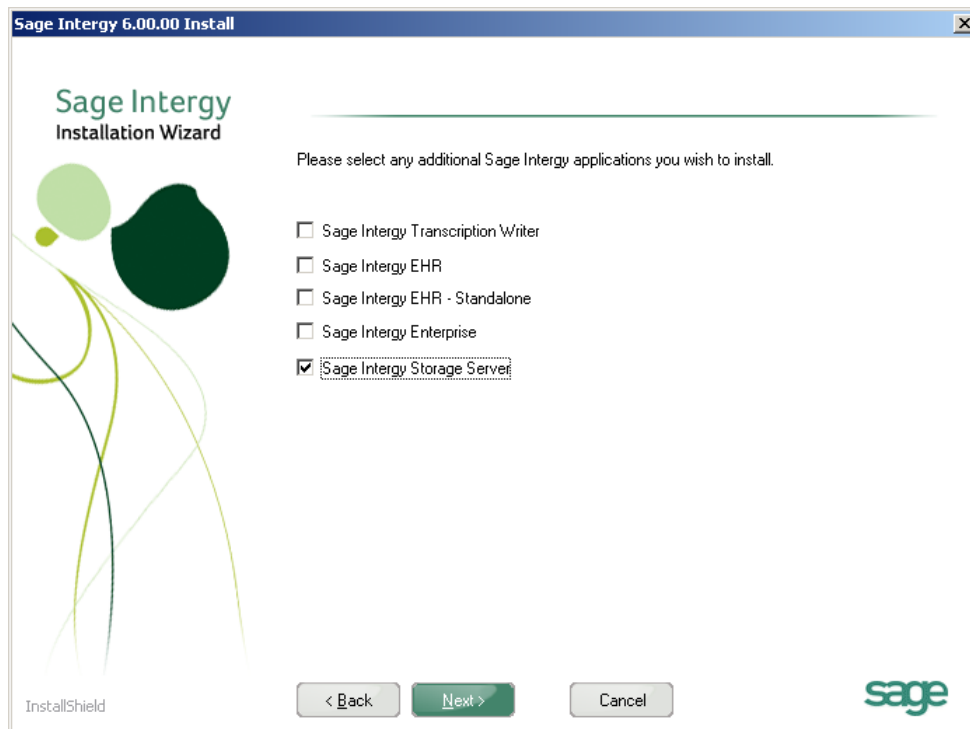
3. The Load Balancing Prompt window is displayed. Always select the first option to enable load balancing for the stand-alone application server. Do not select the second option to disable load balancing except under the direction of R&D personnel. Click on the Next button to continue.

4. The next steps are identical to the new Sage Intergy install procedure, as described on pages 2-21 and 2-22. The following windows will be displayed:

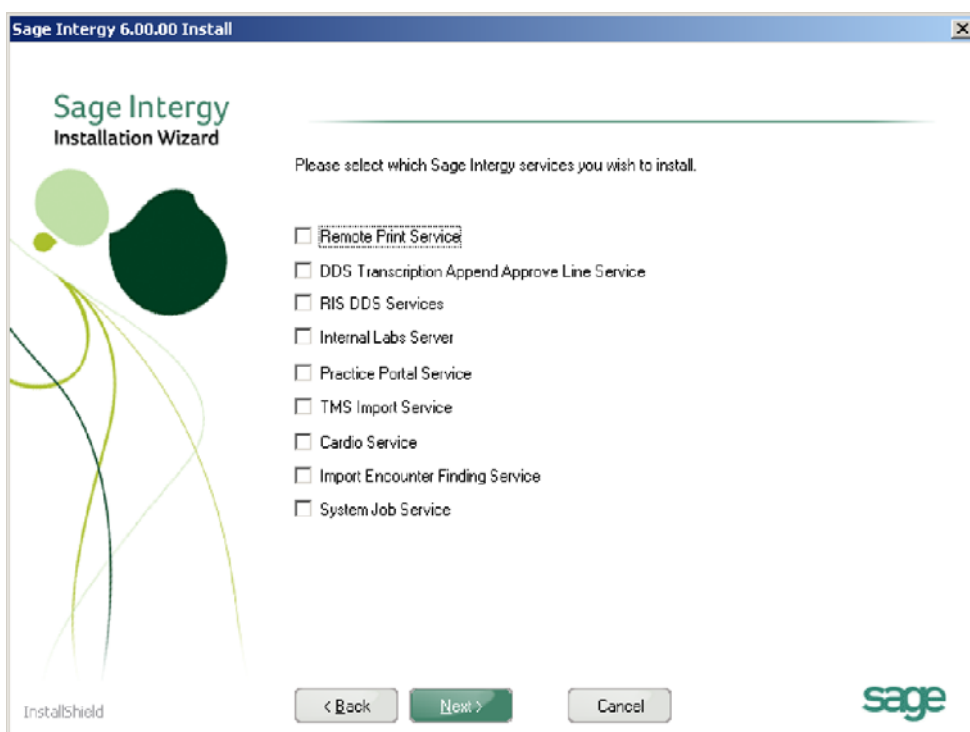
- Destination Folder
- Temporary Folder
- Add Program Icons

You may select defaults for all these items, or change the settings to suit the stand alone application server.

5. The Additional Applications window is displayed. Under normal circumstances, none of these components will be installed on a standalone application server with the exception of Sage Intergy EHR and the Transcription Writer. These components are present for support purposes, and do not indicate that the stand alone application server should also be used as a client workstation. Select the checkboxes for required components on this server and click on the next button to continue.



6. The Sage Intergy services installation window is displayed.



Under normal circumstances, none of these services will be selected for use on a stand alone application server. Click on the Next button to proceed to the next step.

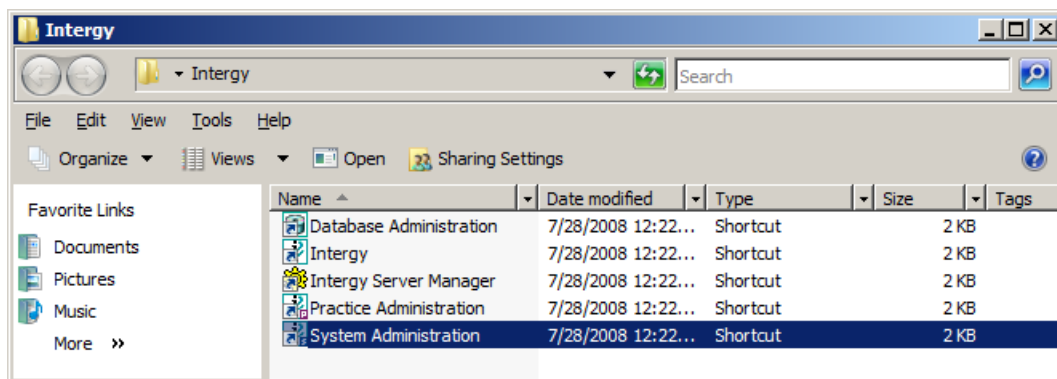
7. A confirmation window will be displayed, listing all of the items selected for installation on the stand alone application server. Review this list, and click on the Next button. Installation will proceed in a manner very similar to the full installation, with the following exceptions:
 - Only Progress client components are installed.
 - Progress Database and configuration steps are skipped or omitted.
 - RMS components are automatically configured with no prompting, based on the main database server settings.
8. Change the service account used to operate the AdminService Windows service. Set the logon account to the 'IntergyService' account instead of the local system account. This account is normally a domain account to permit network authentication, but may also be configured as a local account with the same name on all servers in an environment without a domain controller. This change should be applied to the database server as well as all stand alone application servers, since the local system account typically does not have access to network shares. For more information on configuration of service startup parameters, refer to the Microsoft Technet article at <http://technet.microsoft.com/en-us/library/cc755249.aspx>
9. After the AdminService is correctly configured with a different logon account, reboot the server.

Ship Plan Database Connectivity Configuration

Normally, Ship Plan database connectivity is configured by default to connect to the localhost. However, when a stand alone application server is in use the default setting is not appropriate because the database may be located on a different server. The database connection string parameter must therefore be changed to make use of the literal Sage Intergy server name explicitly.

Set Ship Plan Database Connection Parameter

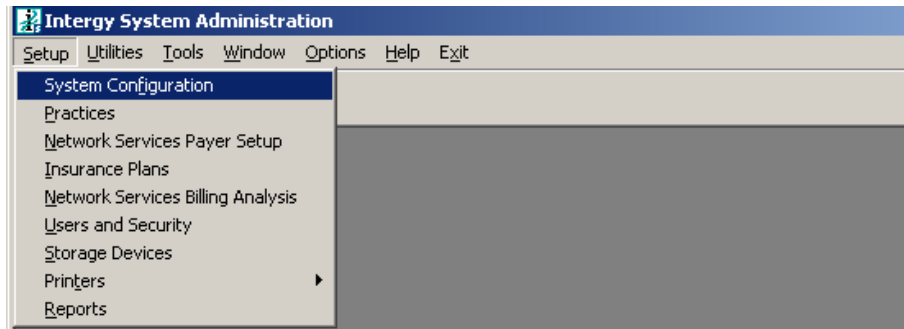
1. To configure the database connection string, log on to the stand alone server as the local administrator and double-click the System Setup or System Administration icon in the Sage Intergy programs folder.



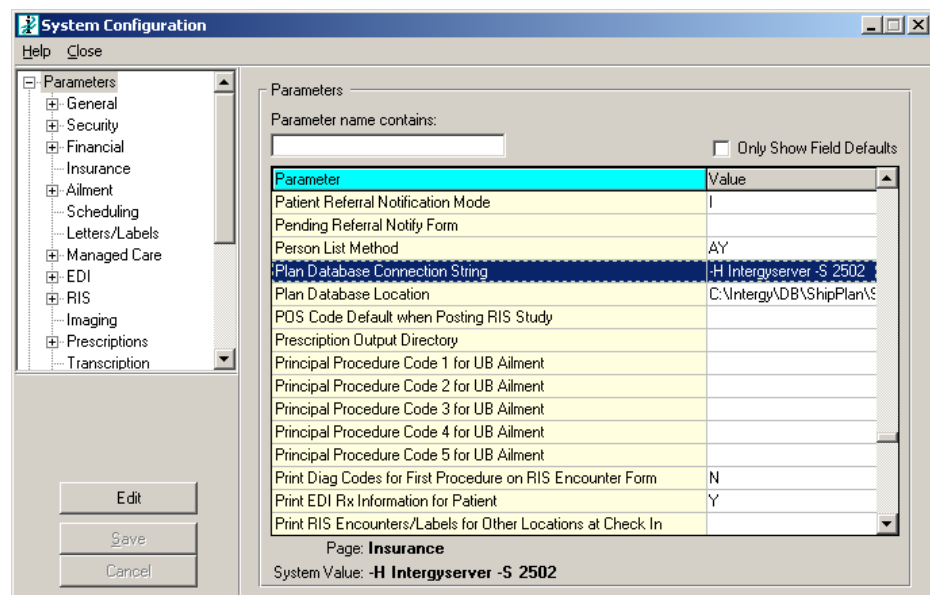
2. The Sage Intergy System Administration logon window is displayed. Use the logon 'sysadm' and the password configured when the main database server was installed and

configured. If you used the default settings, this will be the Site Code followed by the characters 'int.'

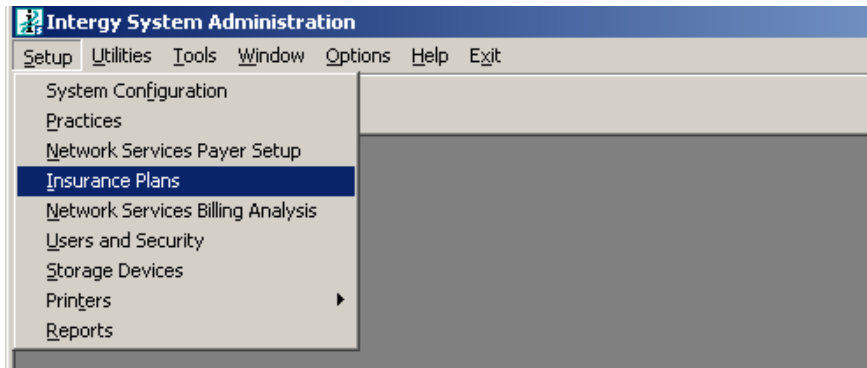
3. The System Administration Desktop is displayed. From the Setup menu, select the System Configuration menu item.



4. The System Configuration Window is displayed. Scroll down in the right pane until the 'Plan Database Connection String' item is displayed. Note that the field value is blank. Highlight this item and click on the Edit button to enter the value '-H <Sage Intergy Server Name> -S 2502' then click on the Save button. Note that this setting uses a different port number than the normal database connection.



5. To test this change, select the Insurance Plans item from the Setup menu on the main System Administration Desktop and ensure that data can be viewed or edited in the same way as it is on the main Sage Intergy application server.



RxDUR Configuration

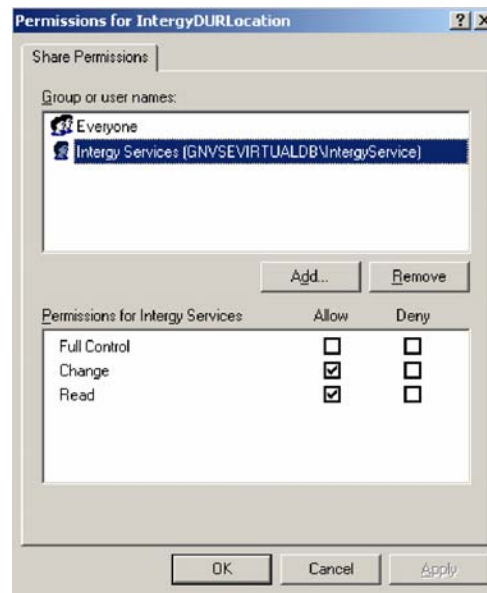
The Rx Database is a third-party application component which is updated quarterly for use with Sage Intergy. It contains specific data related to prescription drugs and clinical usage. When installed in an N-tier environment, Sage Intergy must be specially configured to make Rx DUR available on a network share for multiple application servers.

Create Shared Folders

1. In Windows Explorer, create two new subfolders under the C:\Intergy directory on the main database server. These will be C:\Intergy\DURUpdate and C:\Intergy\DUReLocation and should both be shared as \\IntergyServer\IntergyDURUpdate and \\IntergyServer\IntergyDUReLocation respectively.

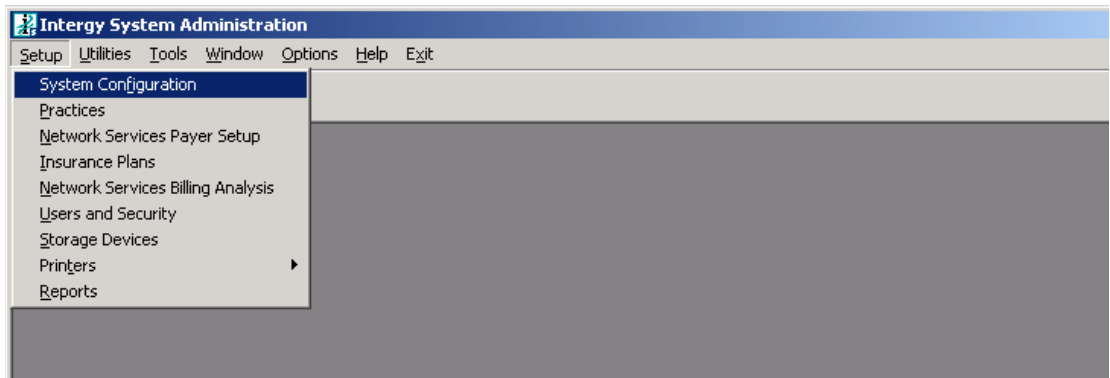


- When settings access on both folders, give the Everyone global group read-only access. Give the local Sage IntergyService account full read and write access. Set these privileges both in the Sharing Permissions and the Share Security sections of the folder properties.



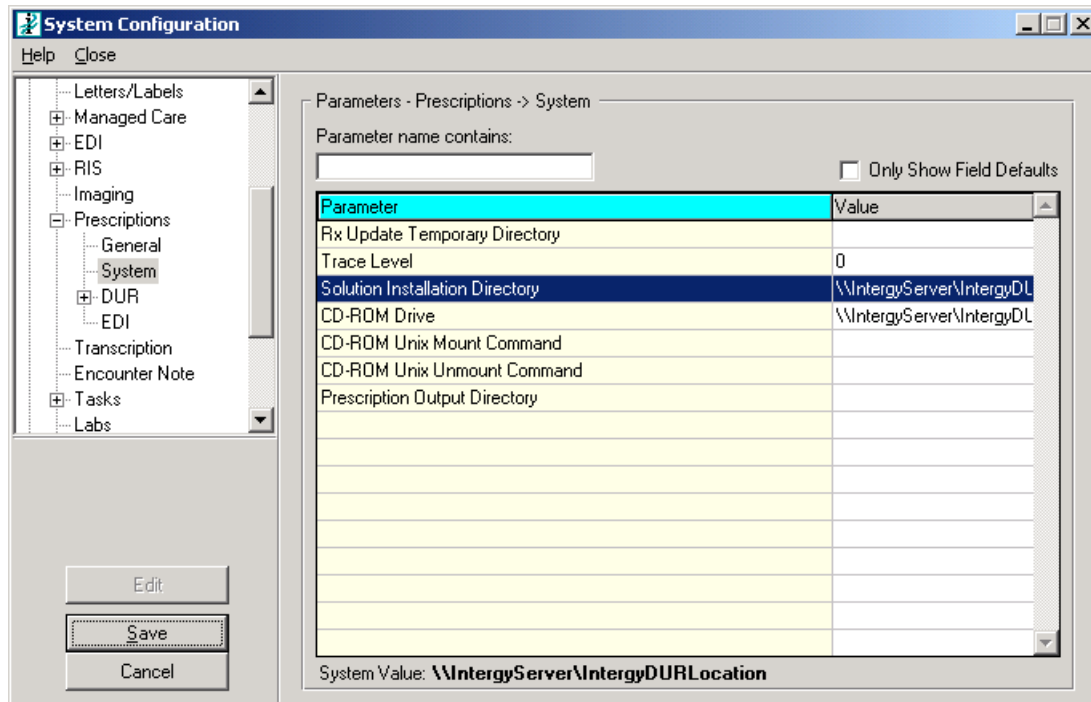
Set Prescription System Parameters

- Open the Sage Intergy System Administration desktop on the database server. From the Setup menu, select the System Configuration menu item.

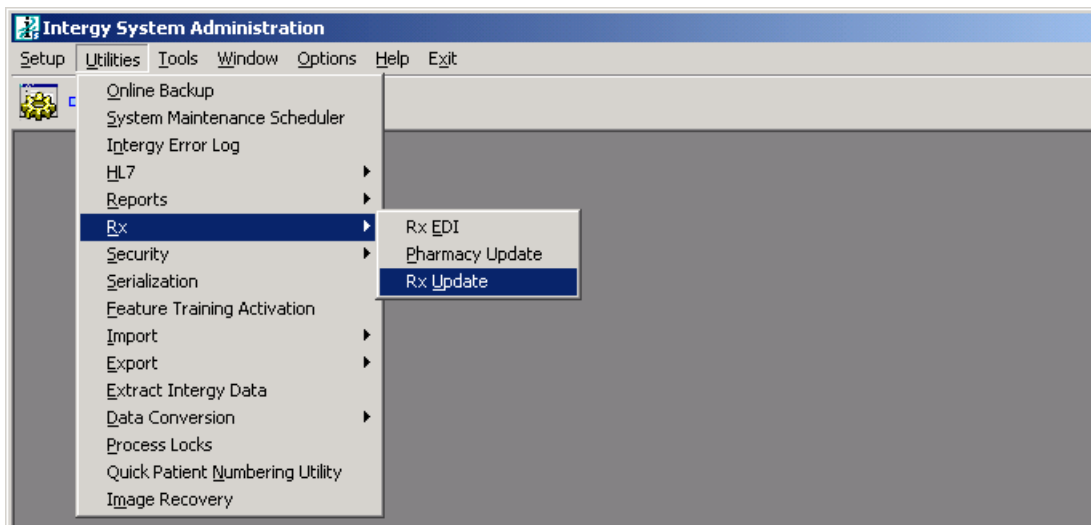


- The System Configuration window is displayed. From the Parameters item in the left pane, expand the Prescriptions tree and click on the System menu item. Click on the Edit button to change two parameter values:
 - Solution Installation Directory: \\IntergyServer\IntergyDURLocation
 - CD Rom Drive: \\IntergyServer\IntergyDURUpdate

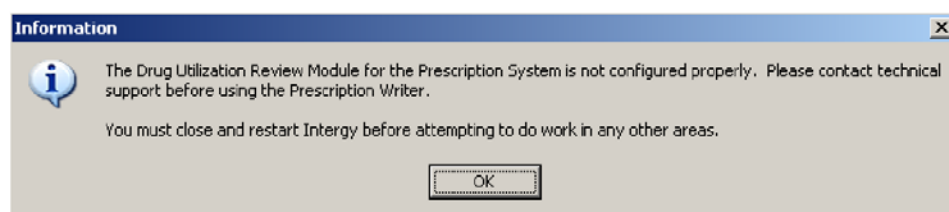
Substitute the appropriate server name if you are using a different one. Click on Save to save the changes.



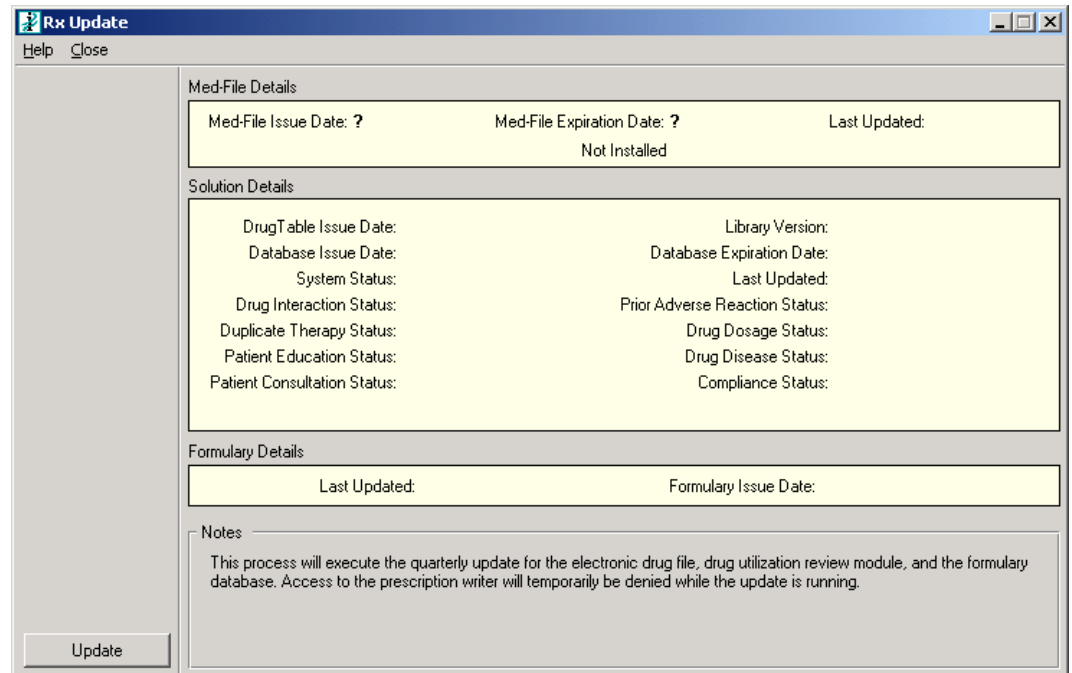
3. To run the DUR Update procedure, open the Utilities menu in the Sage Intergy System Administration desktop. Open the Rx menu and select the Rx Update item.



If a DUR update has not been executed in this customer's environment before, an error message will be displayed. This error is expected and may be ignored.



4. The Rx Update window will be displayed. Click on the Update button in the lower left corner to test the update procedure. Check the naming and the permissions on each shared folder if an error is reported.

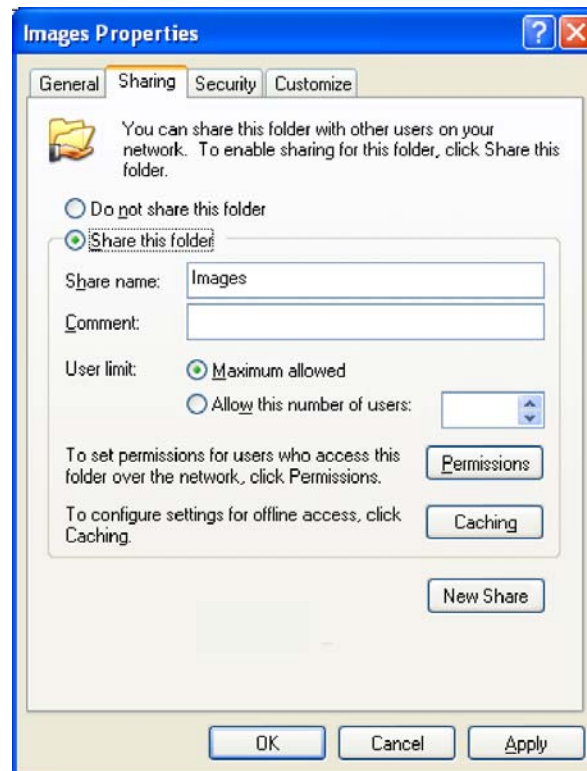


Card Scan Configuration

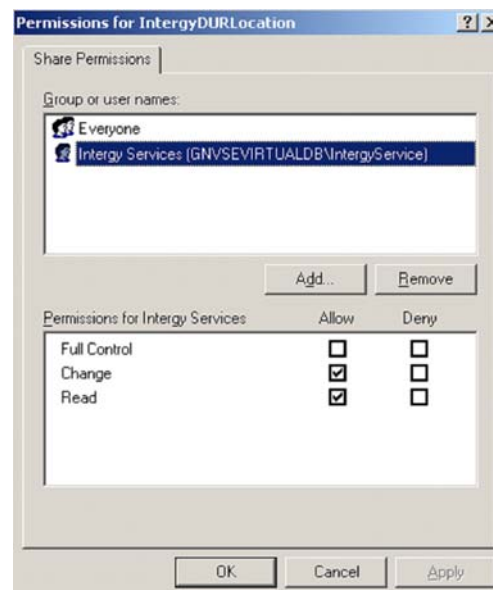
The Card Scan utility allows storage of images specific to identification cards. Sage Intergy must be specially configured to make image files available on a network share for multiple application servers.

Create Shared Folders

1. In Windows Explorer, create a new shared folder. By default, scanned ID card images are stored in C:\Intergy\Images and the share name used should be \\IntergyServer\Images.



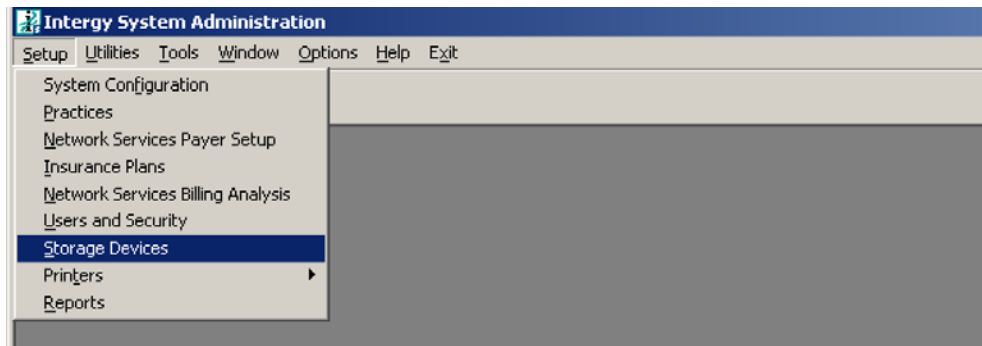
2. When settings access on this folder, give the Everyone global group read-only access. Give the IntergyService account full read and write access. This account may be either a local account or a domain account, depending on the way the customer environment is configured. Set these privileges both in the Sharing Permissions and the Share Security sections of the folder properties.



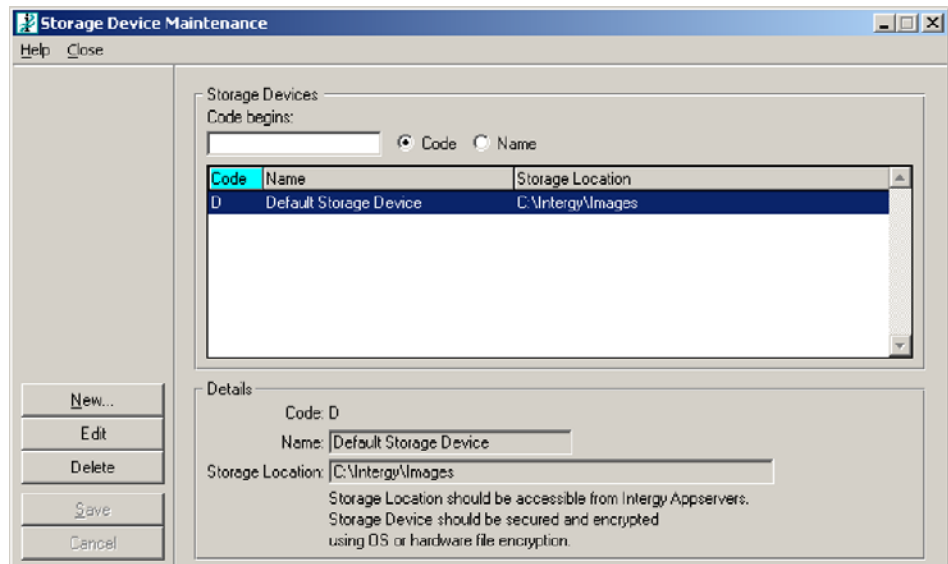
Click on the OK button to save these settings.

Configure Sage Intergy Storage Devices

1. Open the Sage Intergy System Administration desktop on the database server. Select the Storage Devices item from the Setup menu.

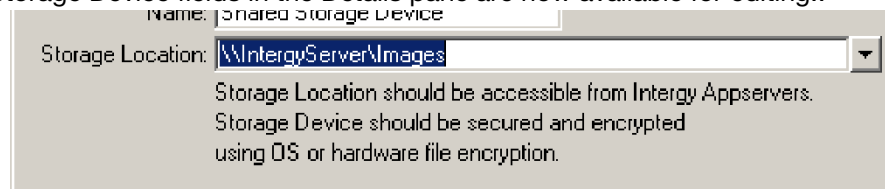


2. The Storage Device Maintenance window is displayed.



Note that by default, only one storage device is configured. Click on the Edit button to edit the existing storage device.

3. The Storage Device fields in the Details pane are now available for editing:.



Change the Storage Location field to use the \\IntergyServer\Images value. Substitute the appropriate server name and shared folder name as needed. Note that these parameters will be used by the stand alone application server for connectivity to the shared folder where scanned card images are stored. Click on the Save button to save the settings.

4. Click on the Close menu item to close the System Configuration window.

Next Steps

After successful installation of a stand alone application server and correct configuration of Sage Intergy settings, you should proceed with Sage Intergy workstation client installation or upgrades as needed.

Chapter 5: Database Tuning

All Sage Intergy 7.00 databases should be manually tuned before client connections are permitted. This applies to all newly implemented installations as well as all Sage Intergy upgrades. Database tuning must also occur in the event of large scale changes to an existing Sage Intergy installation, such as a serialization change that adds new user licenses, or a hardware replacement that changes the specifications of the database server. The instructions in this chapter apply to both new installations and existing installations, but only for Sage Intergy 7.00 and no other version.

Different computing environments may require different data to be entered. In some cases, you will calculate an entry based on a formula. In other cases, you may need to refer to a chart. Note also that many database tuning value labels are not literal, or are otherwise misleading. For example, the field 'Maximum Servers' refers to the number of server connections, rather than the number of server devices. For all tuning parameters, read the instructions carefully to ensure that the correct values are being entered.

When tuning parameters have been successfully applied, a reboot of the database server is necessary to apply all changes.

Typical Installation Settings	.5-2
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Open Database Default Configuration	5-4
General Default Configuration	5-4
Application server configuration changes	5-7
Application Server settings	5-8
Name Server Logging Settings	5-9
Progress Application Server Text File Tuning Settings	5-10
Reboot Requirement	5-10
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Typical Installation Settings

The following table lists typical settings used for database tuning in most environments. Many settings require calculation based on a formula, or require information that must be gathered by the installing technician ahead of time. For numeric configuration settings, note maximum and minimum values carefully. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Database Server Tuning Parameters	Number of blocks in the DB buffer	100,000 in a new installation. A multiple of 25,000 based on database server memory not in use. See chart on page 5-5
	Number of lock table entries	A multiple of 200,000, which is the minimum default value. Set to 400,000 or 800,000 to resolve lock overflow errors. Do not exceed 800,000 without explicit instructions from R&D
	Spin Lock retries	50,000 multiplied by the number of CPU cores.
	Other server arguments	-basetable 1 -tablerangesize 1500 -shmsegsize 256 -napmax 250
	Maximum Servers per Broker	0
	Auto Calculate	Select this checkbox
	Number of Intergy/IEHR users	Enter the number of serialized users for both client types.
Application Server Tuning Parameters	Logging Level	'Error Only' for both Broker and Server
	Logging entry types	'UBroker.Basic' for Broker value only
	Auto Calculate	Select this checkbox
	Number of IEHR Users	Literal number of serialized SIEHR users. Used to calculate Maximum Users/Servers.
	Auto Start	Always checked
	Port Number	Accept default
	Priority Weight	50 for single-server environment, 350 on N-tier database server, Number of actual serialized base users on N-tier stand alone app server
	Server startup timeout	0
	Registration Mode	Use Broker Host IP as default Use Broker Localhost for DHCP, IOD or Sage Intergy Appliance Use Host Name for N-tier
Progress Configuration Text Files	appserver.pf	Verify these values: -mmax 4000 -tmpbsize 4 -s 128 -Bt 2000

Detailed instructions for configuration of these database tuning parameters are provided in the following pages.

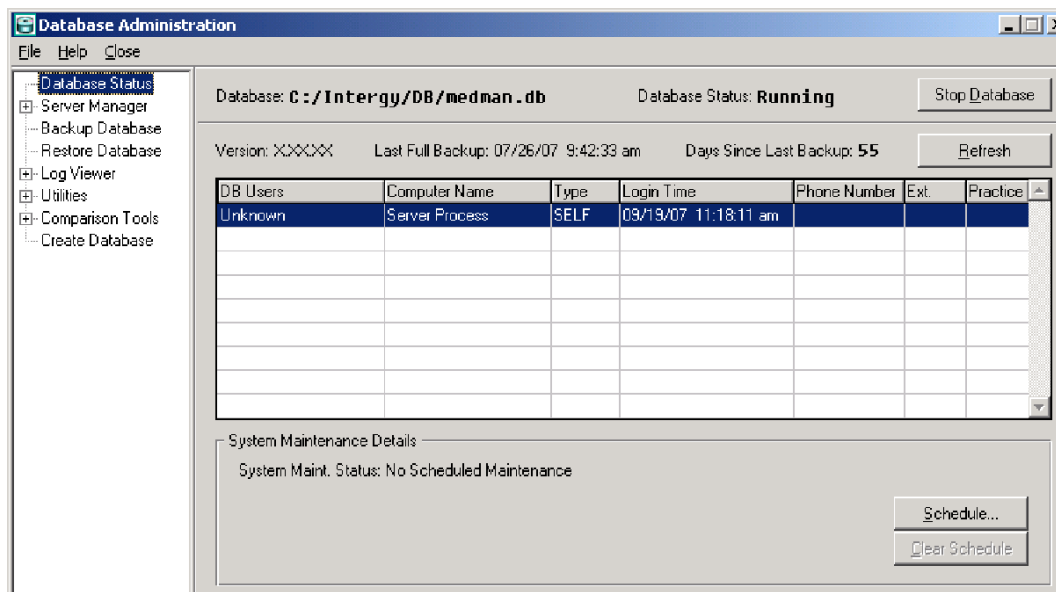
Sage Intergy Database Tuning Instructions

You may be required to execute commands or change settings in one or more Sage Intergy application components when tuning the database. All instructions below assume that you are logged into the appropriate server with administrative privileges. To configure database tuning values, log directly on to the database server.

Database Shutdown

Before setting the cluster size for the Before Image, you must shut down the database.

1. From the Start Menu, select the All Programs menu and open the Sage Intergy menu list. Select the Database Administration menu item to open the Sage Intergy Database Administration window.



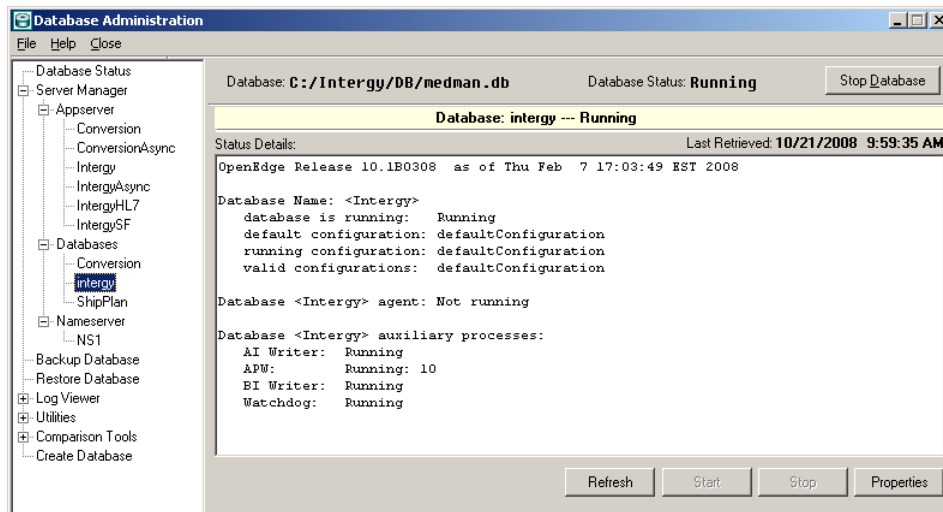
2. Click on the Stop Database button in the upper right corner to stop the database. A window may be displayed indicating that users are connected. Wait until the status field displays the word 'Stopped' before proceeding to the next step.

Database Configuration Parameter Changes

Database performance tuning parameters must be set from the Server Manager component of the Database Administration utility.

Open Database Default Configuration

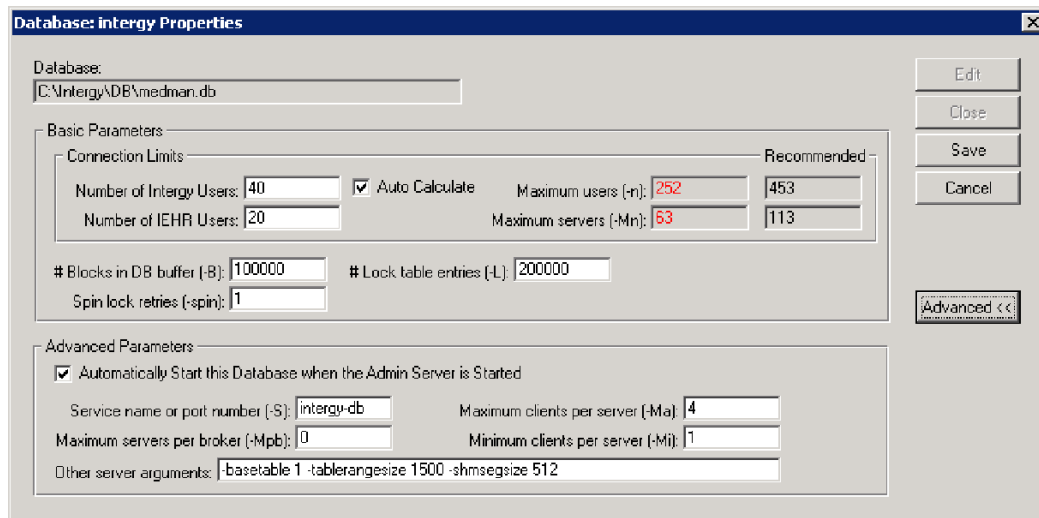
1. From the Start Menu, open All Programs and select the 'Intergy' folder, then select the Database Administration menu item.



2. From the Database Administration window, expand the Server Manager item in the left pane. Expand the Databases item and click on the 'Intergy' menu item to display the status of the primary Sage Intergy database. To proceed with general default configuration, click on the Properties button in the lower right corner.

General Default Configuration

3. The Sage Intergy Database properties window is displayed. Click on the Advanced button in the lower right corner to display all configurable parameters.



The screenshot above shows default settings. Enter custom values for the following fields:

- **Number of Intergy Users** - Type the number of serialized Sage Intergy users that will be making connections to this database server. This number may differ from the number of Sage Intergy EHR users. This value is used to calculate other parameters as described below.
- **Number of IEHR Users** - Type the number of serialized Sage Intergy EHR users that will be making connections to this database server. This number may differ from the

number of Sage Intergy users. This value is used to calculate other parameters as described below.

- **# Blocks in DB buffer** - For all new installations, use 100,000 as the parameter value.

For post-installation tuning, you must obtain two values from the Sage Intergy database server to calculate this parameter. Use the Windows task manager to observe the amount of physical memory that is unallocated during peak database usage. Then calculate the memory usage of the DB Buffer blocks by multiplying the current value of this parameter by 4 KB. Add these two numbers to find out the memory usage in the table below. This number corresponds to a parameter setting that indicates the correct number of DB Buffer blocks that should be entered in the Sage Intergy Database Properties window. If the number in the table does not match the number used to calculate memory usage, change this parameter value.

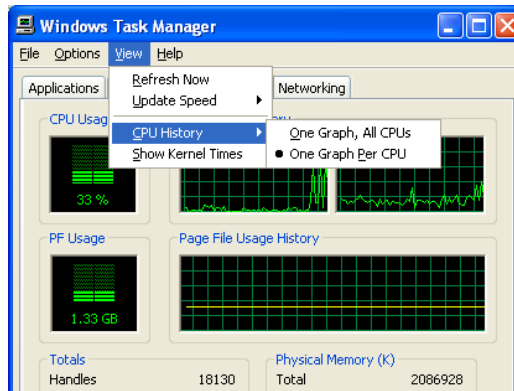
Table 1: Number of blocks in DB buffer setting

Unallocated physical memory + (DB Buffer blocks x 4 KB)	Number of blocks
512 MB or less	25,000
Up to 1 GB	50,000
Up to 1.5 GB	100,000
Up to 2 GB	125,000
Up to 3 GB	150,000
Up to 4 GB	175,000
Over 4 GB	200,000

For example, a customer site may be configured with 100,000 DB Buffer blocks and is leaving 1.3 GB of memory unused during peak operation. 100,000 DB Buffer blocks multiplied by 4 KB equals 400 MB, for a total of 1.7 GB. This memory usage number corresponds to the fourth line of the table, and that value indicates that the DB Buffer blocks setting should be increased to 125,000.

- **# Lock table entries** - This setting controls how many records can be locked in the database for each transaction. It should be set to 200,000 for all environments. However, there is a possibility that users may observe an error that indicates the lock table overflow parameter should be increased. In this case, this number should be doubled to 400,000 or 800,000 in order to resolve the error message. At no time should the number of lock table entries exceed 800,000.
- **Spin lock retries** - This value determines the number of times a database process will attempt to try accessing shared memory during each CPU cycle. If set incorrectly, users will observe slow response from the application. By default, the spin lock retry value is set to one in an untuned database and should be changed manually. To maximize performance, calculate the spin lock value by multiplying the number of CPU cores in the Sage Intergy database server by 50,000. For example, a database server with a quad-core Xeon processor would have four CPU cores, and you would therefore enter '200000' for the spin lock retry value.

To determine the number of virtual processors in a Windows system, open the Windows Task Manager. In the View menu, make sure that the CPU history shows one graph for each processor.



- **Other server arguments** - This field contains command line arguments that should be changed by the installing technician. For all installs, enter the text `-basetable 1 -tablerangesize 1500 -shmsegsize 256 -napmax 250` to set database timing and allow for logging of performance statistics.
- **Service name or Port #** - Set this value to 'Intergy-db' with no quotes.
- **Maximum Servers per Broker** - Accept the default value for this field. This value is typically zero.
- **Maximum Clients per Server** - This value determines the number of client connections allowed for each remote client server process. In most cases, the default value of 4 should not be changed. On Sage Intergy servers with limited memory, this number can be increased to allow for more client connections at the expense of slower performance. This value may also need to be changed when setting the maximum servers value.
- **Minimum Clients per Server** - This value should always be set to 1.
- **Auto Calculate** - Select this checkbox to activate the automatic calculation of the Maximum Users and Maximum Servers fields. Use automatic calculation for Sage Intergy 7.00 whenever possible.
- **Maximum users** - This setting represents the maximum number of database connections, as opposed to the literal number of users. This is because client workstations may establish multiple database connections when functions such as reporting and imaging are used. This value is automatically configured when the Auto Calculate checkbox is selected, and should be entered manually only for n-tier environments or other special configurations of Sage Intergy.

When manually calculating this value, round up to the nearest integer value. Make sure the maximum users setting is always larger than the multiplied product of the Maximum Servers and the Maximum Clients Per Server values.

For sites where Intergy is installed without SIEHR, the base formula is $300 + (1.1 \times 2a)$ where a is the number of serialized Sage Intergy users.

If SIEHR is installed and serialized, then the formula is $300 + (1.1 \times 2a) + (1.1 \times b/4)$ where a is the number of serialized Sage Intergy users and b is the number of serialized SIEHR users.

Example: A customer site has fifty Sage Intergy users and forty SIEHR users serialized. The formula would be $300 + (1.1 \times 2 \times 50) + (1.1 \times 40/4)$. The resulting value of 421 would be entered in the Maximum Users field.

- **Maximum servers** - This setting is the number of remote client server (RCS) processes. This number is a calculated value based on the number of serialized users for Sage Intergy and Sage Intergy EHR. A different formula is used for N-tier implementations. However, both formulas use the Maximum Clients per Server value entered previously, and may require that value to be changed. This value is automatically configured when the Auto Calculate checkbox is selected, and should be entered manually only for n-tier environments or other special configurations of Sage Intergy.

For standard Sage Intergy installations where there is a database server and no stand alone appserver devices, use the following formula for manual calculations:

$(a \times 1.1) / \text{maximum clients per server}$ where a is the number of serialized Sage Intergy users.

For N-tier Sage Intergy installations where there is at least one stand alone appserver, use the following formula instead for manual calculations:

$((2a \times 1.1) / \text{maximum clients per server}) + ((b \times 1.1) / 4)$ where a is the number of serialized Sage Intergy users and b is the number of serialized SIEHR users.

Example: An N-tier site has fifty Sage Intergy users and forty SIEHR users serialized, and uses the default Maximum Clients per Server value. The formula would be $(2 \times 100 \times 1.1)/4 + (40 \times 1.1)/4$. The resulting value of 66 would be entered in the Maximum Servers field.

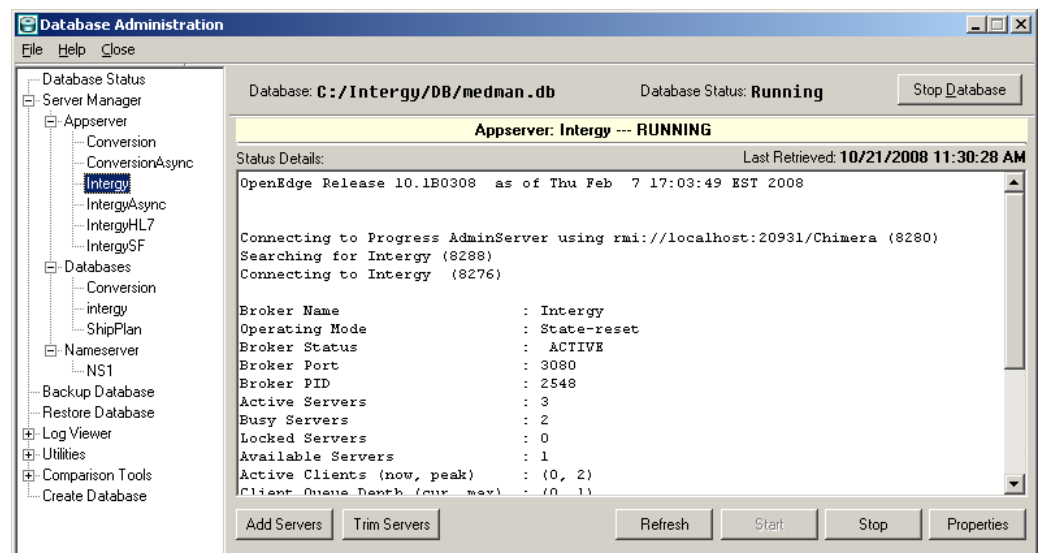
For both types of environments, do not exceed a value of 512, which is the highest value permitted. If the calculated maximum servers value is higher than 512, set the maximum clients per server value higher by one. Then repeat the maximum servers calculation and calculate a new value that does not exceed 512.

4. Click on the Save button to save any changes made during this step. Click on the Close button to close this window and proceed to the next step.

Application server configuration changes

Application server configuration properties may also have to be adjusted in order to match database tuning changes.

1. From the Start Menu, open All Programs and select the 'Intergy' folder, then select the Database Administration menu item.



- From the Database Administration window, expand the Server Manager item in the left pane and then expand the AppServer item. For both the 'Intergy' and 'IntergyAsync' objects, click to display the Appserver status and click on the Properties button item in the lower right corner to configure application server settings. Apply the settings described in this section both to the 'Intergy' and the 'IntergyAsync' application server objects.

Application Server settings

- The application server properties window is displayed. Click on the Advanced button in the lower right corner to display all configurable parameters. To change these values, click on the Edit button.

This screenshot displays default settings that apply to most Sage Intergy installations. These parameters are described in more detail below:

- Auto Calculate** - Select this checkbox. For Sage Intergy 7.00 you may use the automatic calculation and should not enter the Maximum Server value manually.
- Maximum servers** - This field is populated automatically. The lowest value is 999, and will change depending on the formula $4x + y$ where x is the number of serialized Intergy users and y is the number of serialized SIEHR users.
- Logging Level** - This value is set to 'Error Only' for both the Broker and the Server setting values.
- Logging entry types** - This value is set to 'UBroker.Basic' for the Broker value and is left blank for the Server value.
- Auto Start** - This checkbox is always selected.
- Port Number** - This value will be different depending on the number of Appservers installed. Do not change this value unless there is a conflict with another Intergy application server in an N-tier environment.
- Priority weight** - This value is set to 50 in most environments, where the primary Intergy database server is also the only application server. In an N-tier environment,

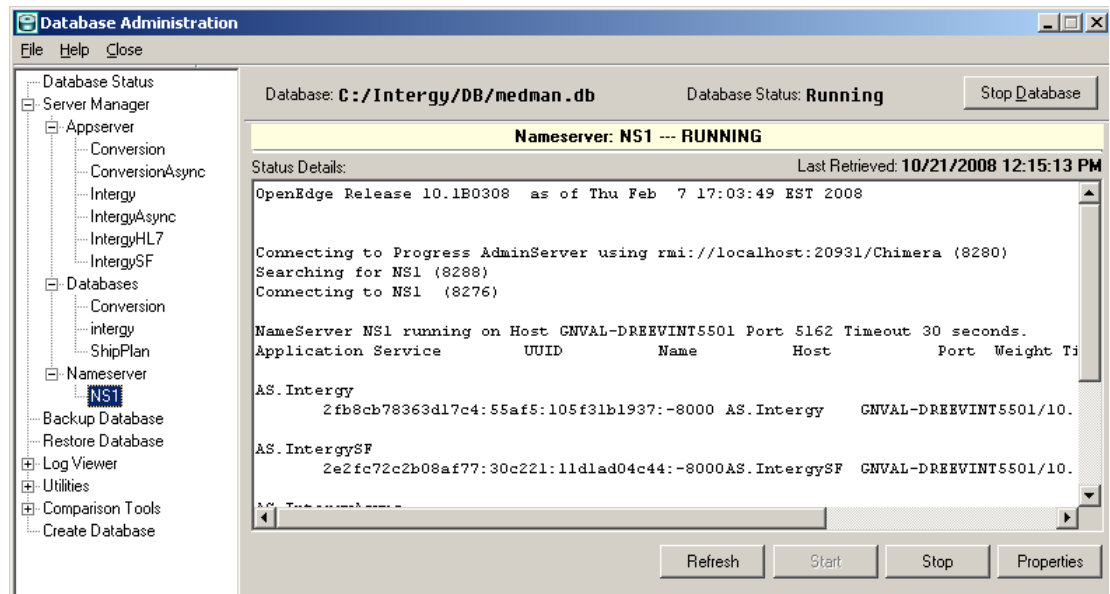
the database server uses a priority weight value of 350, and a stand alone application server uses a value based on the maximum number of base users that will be connected. Refer to the Sage Intergy 7.00 System Requirements document to obtain the maximum number of users that may be connected to a stand alone application server.

- **Server startup timeout** - This value is always set to zero.
 - **Registration Mode** - By default, the Use Broker Host IP Address radio button is selected. Click on the Use Broker LocalHost option if the Intergy server is installed in an environment where DHCP is in use, or where the hostname is not yet determined as with an Sage Intergy On Demand server. If the Appserver is configured for an N-tier environment, click on the Use Host Name radio button and type the fully qualified domain name of the primary Sage Intergy database server in the field to the right.
4. Click on the Save button to save any changes which have been applied. Click on the Close button to close the application server properties window.
 5. Remember to apply these value changes to both the 'Intergy' and the 'IntergyAsync' items in the Database Administration left pane list. Repeat this procedure if you have not already applied the same changes to the other item.

Name Server Logging Settings

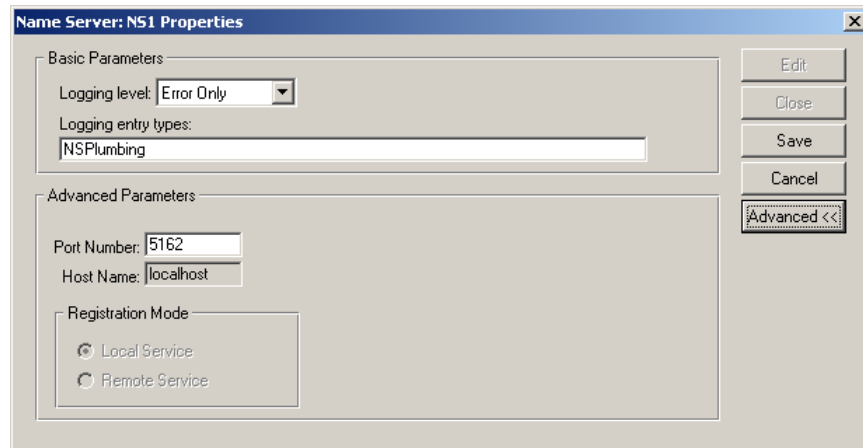
One of the name server properties may also have to be adjusted in order to match database tuning changes.

1. From the Start Menu, open All Programs and select the 'Intergy' folder, then select the Database Administration menu item.



2. From the Database Administration window, expand the Server Manager item in the left pane and then expand the NameServer item. Click on the NS1 item to display the Nameserver status, and then click on the Properties button in the lower right corner to configure name server settings.

3. The name server properties window is displayed. Click on the Advanced button to display advanced settings, and click on the Edit button to make changes.



In the logging level field, make sure the 'Error Only' value is selected from the drop down list. Click on Save to apply this change, and then click on the Close button to close the nameserver properties window.

Progress Application Server Text File Tuning Settings

A text file is used on the Sage Intergy application server to configure specific Progress database settings. For Windows, this file is typically C:\Intergy\AppServer.pf in installations using the default drive layout. Different operating systems use different configuration files because of the presence of client components on the Windows servers. For either type of server, open the appropriate file in a text editor and search for the 'mmax', 'Bt', 'tmpbsize' and 's' configuration lines. Make sure the following four configuration lines are set:

```
-mmax 4000
-tmpbsize 4
-s 128
-Bt 2000
```

The -mmax setting controls how much memory space is used for a specific type of reserved code. The -s parameter defines stack space used by Progress modules. The -Bt and -tmpbsize settings determine temporary memory usage.

Reboot Requirement

A reboot of the Sage Intergy database server is required after setting database tuning parameters.

Next Steps

If database tuning is occurring as part of a new install or an upgrade, you should proceed with Sage Intergy workstation client installation or service configuration as needed. After any database tuning work action, test Sage Intergy client connectivity and performance to make sure that normal operation of the customer environment can proceed.

Chapter 6: Intergrity Storage Server Configuration

When installing the Sage Intergrity application server, other Sage Intergrity applications may be installed successfully without additional configuration. However, note that Sage Intergrity Storage Server (ISS) requires manual configuration before it can be used. The configuration step is performed in the System Configuration window of the Sage Intergrity System Administration desktop. For sites with EHR PDA clients, an additional serialization step is performed in the ISS Administrative Console.

- Typical Installation Settings6-2**
- Server Installation6-2**
- Storage Server Catalog and Network Settings6-2**
 - Open Sage Intergrity System Configuration6-3
 - Configure Catalog Path and IP Address6-3
- Storage Server Serialization6-3**
- Storage Server Storage Device Configuration6-5**
- Setup of the Sage Intergrity Storage Server backup script6-6**
- Next Steps6-8**

Typical Installation Settings

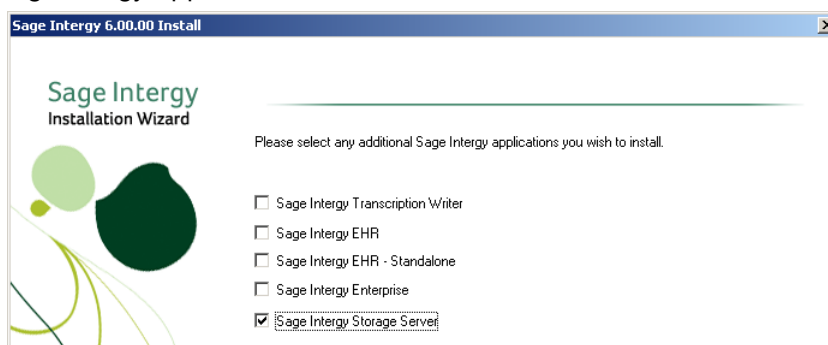
The following table lists installation settings used for the Sage Intergrity Storage Server in most environments. Refer to this table if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
System Configuration Settings	Image Catalog Path	\\catalog1 is default
	Imaging Server IP Address	Numeric or DNS address of Sage Intergrity Server or Application server where ISS is installed. Do not use 'localhost'.

Directory names should always be adjusted to match actual directory locations when Sage Intergrity is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

Server Installation

To install the Sage Intergrity Storage Server, a checkbox is selected as part of the Sage Intergrity application install process as described on page 2-7. This option is displayed on the Additional Sage Intergrity Applications window.



For installation that occurs when upgrading to Sage Intergrity 7.00, or when adding the Sage Intergrity Storage Server to an existing Sage Intergrity 7.00 server, you must manually execute the setup executable from the Sage Intergrity installation DVD. Insert the installation DVD media into the hardware where the Sage Intergrity Storage Server will be implemented and run the X:\StorageServer\Setup.exe executable file.

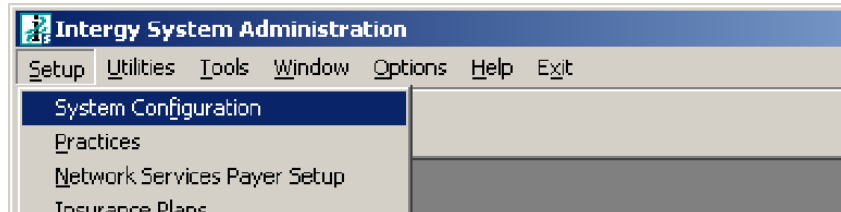
The Sage Intergrity Storage Server is typically installed on the same hardware as the primary Sage Intergrity database server, but may also be installed on separate hardware. Refer to the Sage Intergrity 7.00 System Requirements document for information on how hardware for each type of installation is implemented.

Storage Server Catalog and Network Settings

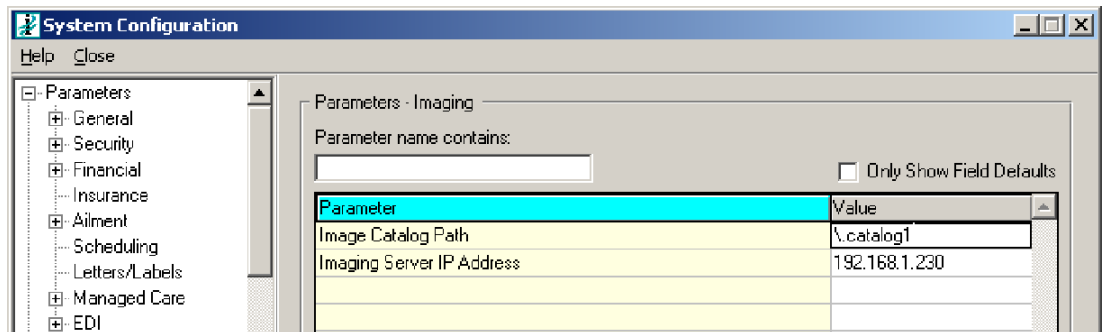
To configure ISS catalog and network settings, log on to the primary Sage Intergrity database server as an account with local administrative access.

Open Sage Intergrity System Configuration

1. Open the Sage Intergrity desktop folder or the Sage Intergrity program group from the Start menu and click on the System Administration icon, and then log on as the 'sysadm' user with the appropriate password for the customer environment.
2. When the Sage Intergrity System Administration window is displayed, click on the Setup menu and select the System Configuration item.



3. The System Configuration window will be displayed.



In the left pane, click on the Imaging item in the Parameters list. The Imaging parameters will be displayed in the right pane.

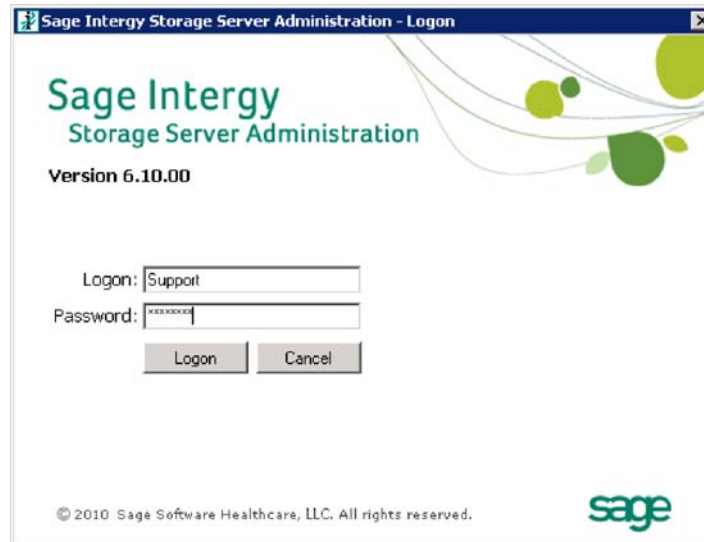
Configure Catalog Path and IP Address

4. Click on the Edit button in the lower left corner and enter the following values for each Imaging parameter:
 - Imaging Catalog Path - This is the default imaging catalog that will be used by Sage Intergrity to store and retrieve images. The default value is '\\catalog1' without the quotes. A Sage Intergrity environment may be configured for multiple catalog folders, in most cases to accommodate multiple practices that do not share image files. Therefore, if different practices are using different catalogs, configure this same parameter in the Practice Administration imaging parameters to override the system administration setting as required.
 - Imaging Server IP Address - This value must be the numeric IP address or DNS name of the Sage Intergrity Storage Server. Do not use the 'localhost' value.
5. Click on the Save button to save these new parameter values, and then exit the Sage Intergrity System Administration desktop.

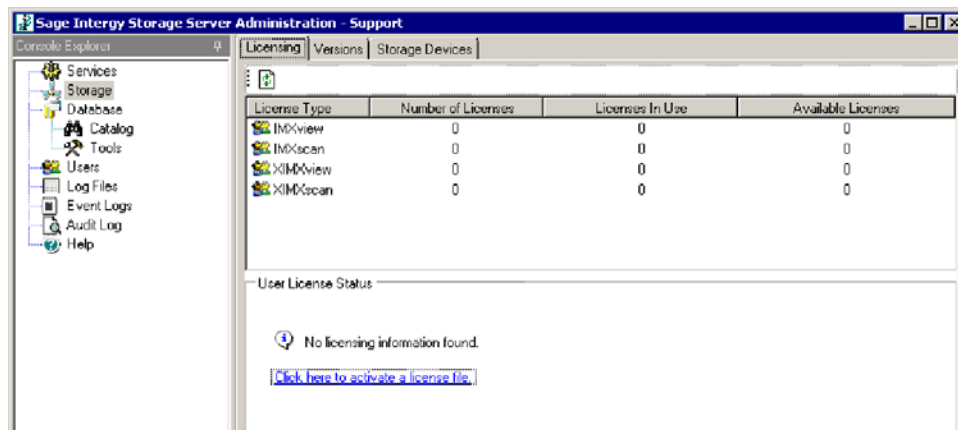
Storage Server Serialization

Serialization of the ISS component is distributed as a separate license file. To apply this serialization, it is necessary to run the ISS Admin Console. Licenses are required only for EHR PDA client devices. Skip this section if your customer site has not implemented EHR PDA.

1. To access the Storage Server Administrative Console, click on the Start Menu, click on the All Programs menu and open the Sage Intergrity Storage Server menu. Select the Administrative Console item to proceed.
2. The logon screen will be displayed. Log in as the support user, typing in 'Support' for the user name as well as the appropriate password.



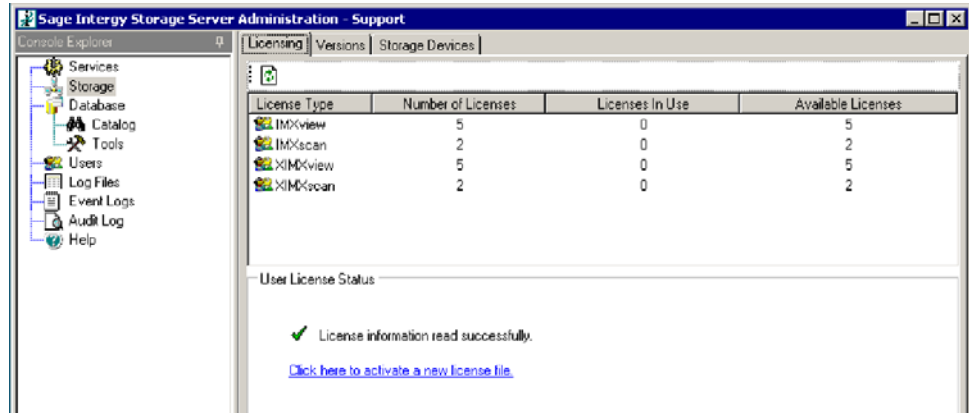
3. When the Administrative Console is displayed, click on the Storage item in the left pane to display the Storage configuration options. Click on the Licensing tab to display licensing data.



By default, no licenses are present when the Sage Intergrity Storage Server is installed for the first time.

4. Click on the link in the bottom pane to activate a license file. When purchasing a license from Sage, this file may be distributed via e-mail or CD-ROM media and copied to a location on the server. This will add licenses to a new installation, or increase the number

of licenses available in an existing installation. The displayed information will automatically update after a new license has been selected and applied.

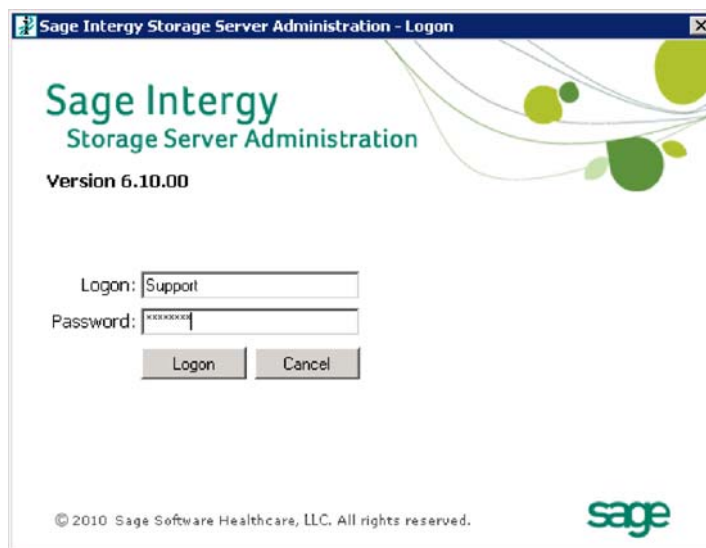


Note that newly applied licenses are not effective until the Sage Intergy Storage Service is restarted. You may restart the service from the Services item of the administrative console, or from the Windows Services Control Panel. The service is also restarted when the server is rebooted.

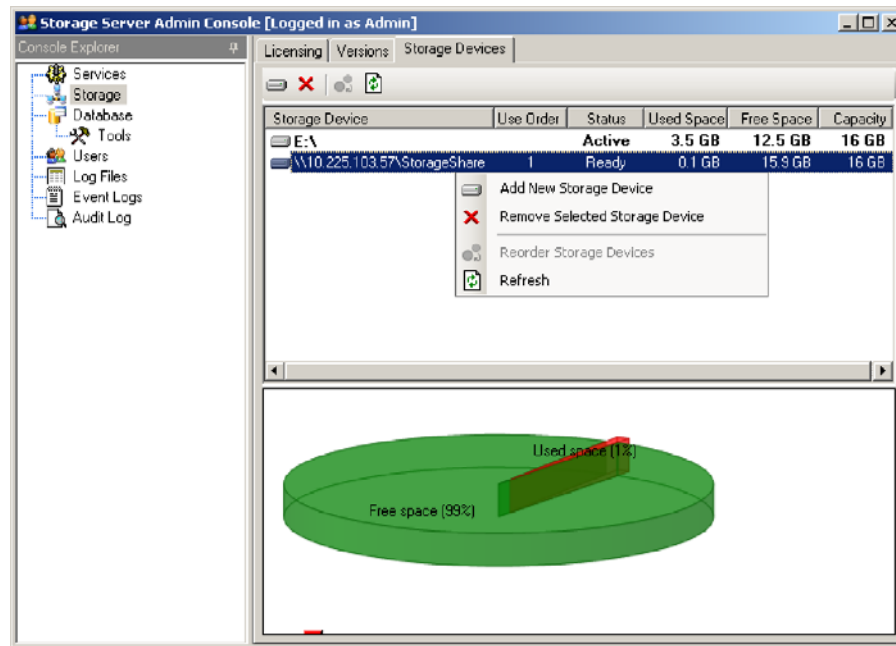
Storage Server Storage Device Configuration

The Sage Intergy Storage Server may use local disks or remote file shares to store images and other data. A default installation of Sage Intergy Storage Server on the Sage Intergy database server should use the E: drive as the primary storage device. Run the ISS Admin Console to configure the ISS storage device settings..

1. To access the Storage Server Administrative Console, click on the Start Menu, click on the All Programs menu and open the Sage Intergy Storage Server menu. Select the Administrative Console item to proceed.
2. The logon screen will be displayed. Log in as the support user, typing in 'Support' for the user name as well as the appropriate password.



- When the Administrative Console is displayed, click on the Storage item in the left pane to display the Storage configuration options. Click on the Storage Devices tab.



- Right-click in the Storage Device list pane and select the Add New Storage Device menu item to add a storage device. The E: drive is the preferred location for the main storage device. If externally-connected network storage is available, use the appropriate UNC path or mapped drive letter. Note that only one storage device may be active for any given ISS installation.

Setup of the Sage Intergy Storage Server backup script

In previous versions of Sage Intergy, the configuration of the Sage Intergy backup script was a specialized process that was left to the discretion of the installation technician. For Sage Intergy 7.00, all Sage Intergy backup functions are standardized using scripts that are included on the installation media. Typically, the batch file used for ISS will be copied automatically to the C:\Program Files\Intergy Storage Server\ folder on the database server.

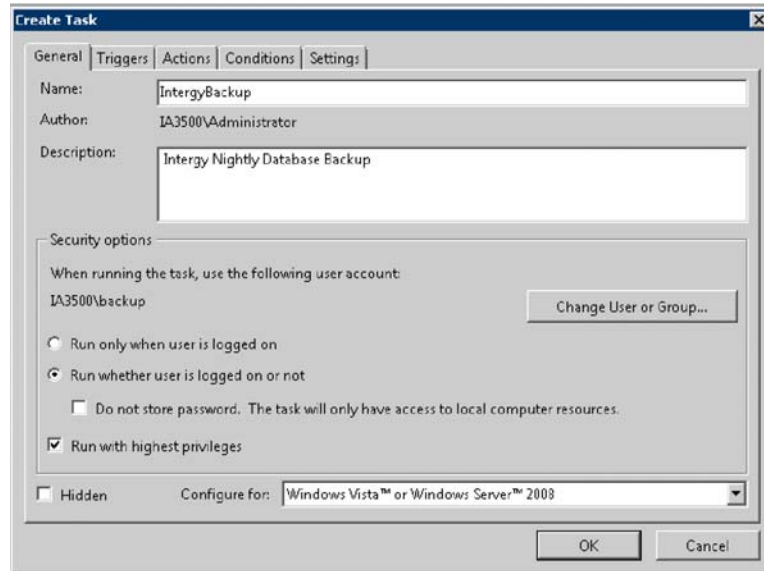
Note that this script only creates an ISS backup which is written to disk storage. A full system backup that includes the operating system and all other data files must be performed separately using a third-party product. Refer to Appendix A - Backup Exec Installation and Configuration for detailed information on installation of the full system backup component.

The Windows Server 2008 task scheduler is used to execute the Sage Intergy Backup script as an automatic process. The task scheduler component of Windows Server 2008 differs significantly from previous versions. For detailed information on configuration and usage of the task scheduler, refer to the Microsoft Technet documentation at the following URL:

<http://technet.microsoft.com/en-us/library/cc727168.aspx>

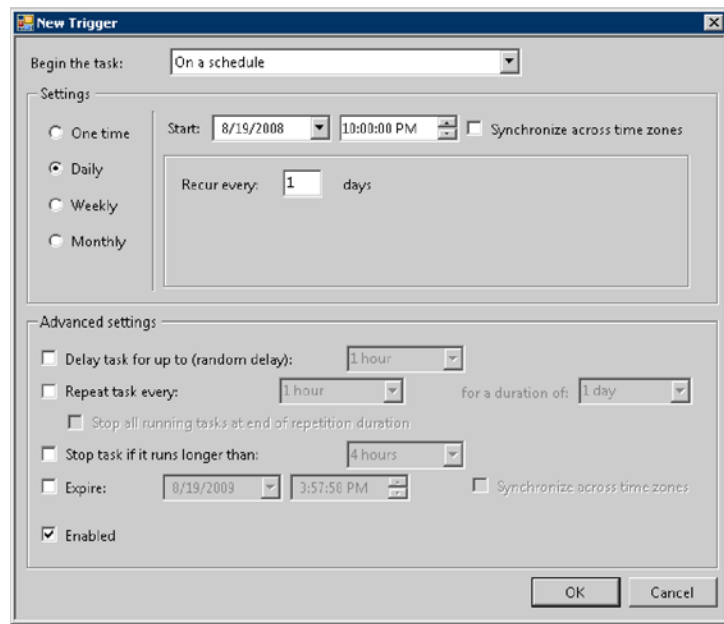
Use the Windows Server 2008 task scheduler to create a scheduled task for the C:\Program Files\Intergy Storage Server\ISS_Backup_V2.bat script. Take special care not to use any other file by mistake, as other batch scripts may be included as part of the installation for

customized environments. Set the file to be executed from the Action tab when creating a task. Use the following screen shots as guides for configuring the following parameters:



When creating a task, set the following general parameters:

- Set the local 'Backup' account as the user account
- Run whether user is logged on or not.
- Run with highest privileges
- Configure for Windows Vista or Windows Server 2008



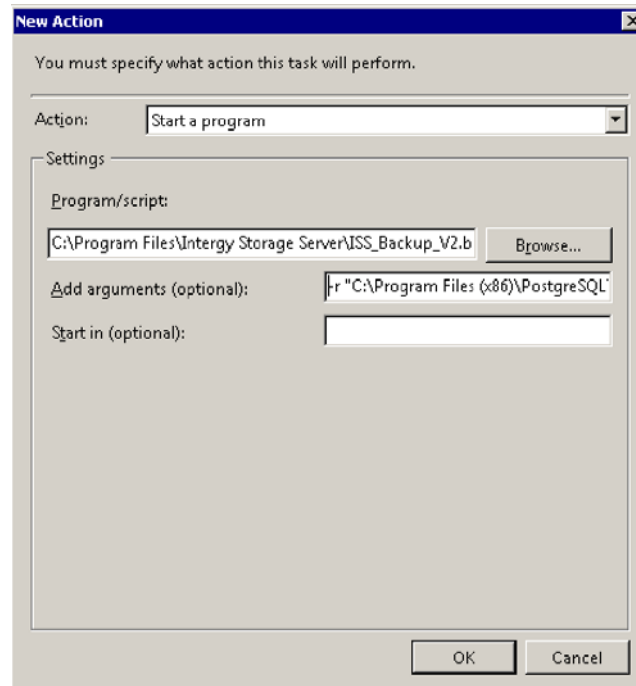
When creating a task, set the following trigger parameters:

- Daily schedule starting at 10:00 pm on the current day. Change this time as necessary to suite the operating hours of the customer site.
- Recurs every day (set field to value 1)
- Enabled checkbox is selected

As a best practice, test the operation of the script before any further database changes are made. Observe the Windows Server application log and the Sage Intergy logs for any errors that must be resolved.

Special instructions for 64-bit systems

For installation of Sage Intergy Storage Server on a 64-bit operating system, the '-r' argument must be applied to specify the directory of the PostgreSQL binary files. Use the 'New Action' or 'Edit Action' options to define arguments for the batch script that will be executed as a scheduled process.



In this example, C:\Program Files (x86)\PostgreSQL\8.3\bin is the directory where the PostgreSQL binary files are stored. Because this directory name contains spaces, it is delimited with double quotes. Note the use of the '-r' argument without quotes to prepend the directory name.

Manually verify the correct location of the PostgreSQL binary files before applying this change to ISS backup scheduled tasks installed on 64-bit operating systems.

Next Steps

As a best practice, immediately after installation of the Sage Intergy Storage Server you should test Sage Intergy clients where scanning and image viewing functions will occur in the customer environment. If installing other Sage Intergy application components or services, proceed with installation of those items as required.

Chapter 7: Document Delivery Server Configuration

When installing the Sage Intergy application server, other Sage Intergy applications may be installed successfully without additional configuration. However, Document Delivery Server (DDS) requires manual configuration before it can be used.

Sage Intergy customers who make use of Transcription Writer, or who are Radiology Information System (RIS) users may require installation and configuration of DDS. This chapter provides information on installation and configuration of DDS for correct operation in most customer environments. Sage Intergy customers may use DDS to automate delivery of documents to other providers or medical services related to transcriptions or radiology documentation. Transmission of this type of data is automated as much as possible for each provider; in cases where faxes are not practical or permitted, documents may be printed and labeled automatically instead.

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Typical Installation Settings

The following table lists typical installation settings used for DDS in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Device Installation Settings	Imprint Terminal ID/ Call Subscriber ID	Practice Name
	Local Fax Number	Phone Number of connected line
	Dialing Type	Tone
	PBX Pre-Dial	Numeric digits needed for outside line
	Line Direction	Output Only
	Country Code	USA(1)
	Area Code	Area code of practice
	Apply Dialing Rules	Select Checkbox
Windows Service Account	Account LogonNames	DDSAApprove DDSCheckFax DDSFax DDSIInbound DDSPrint
	OU	<IntergyDomainName>\Users
	First Name and Full Name	Same as Logon Name
	Password	int<license code>
	Profile Path	\\<IntergyServerName> \users\%username%
	Group Membership	Domain Users, Domain Admins
	Log On As A Service	Apply privileges
DDS Services	Log On Account	Use DDSApprove account for single service. Use all service accounts for multiple services
DDS System Administration parameters	Fax Server IP Address	Numeric address of Castelle Fax server
	Fax Server User ID	User name transmitted by Castelle Fax server
	Fax Server Password	Password transmitted by Castelle Fax server
	Fax Server software location	Use specific drive letter and complete directory name of local installation
	Fax Server Name	Leave blank
	Fax Server Port Number	Leave blank

Directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

Selection of Installation Type

The installing technician will configure DDS on a separate, stand-alone application server in one of three ways:

- Single Queue - One Windows service processes all DDS operations.
- Multiple Queue - Five separate Windows services each process approvals, printing, inbound messages, outbound faxes and fax checking.
- GUI Application - An active application that does not operate as a service. This method of DDS operation may only be used when upgrading from a previous version of Sage Intergy.

When deciding which configuration to use, consider the expected volume of transcription and radiology data that the Sage Intergy customer handles on a daily basis. In general, sites that use only the Transcription Writer will use the single queue configuration, and RIS sites with many referral partners will use the multiple queue configuration. If in doubt, contact Sage support for guidance.

When upgrading from a previous version of Sage Intergy, an existing DDS installation will be detected and the existing GUI application configuration will not be removed or uninstalled. As a best practice, when upgrading from Sage Intergy 3.50 or earlier the technician should install DDS as a single queue Windows service. If you are upgrading from a previous version of Sage Intergy, read all sections of this appendix carefully and refer to the Upgrade section in Appendix D.

DDS may be configured in many different ways. However, complex configurations should be applied only after analysis of DDS usage at the customer environment. For this reason, initial installation of DDS should use either the single queue or multiple queue method listed above. Customer sites that require advanced configuration of DDS should contact Sage support for guidance.

Prerequisites

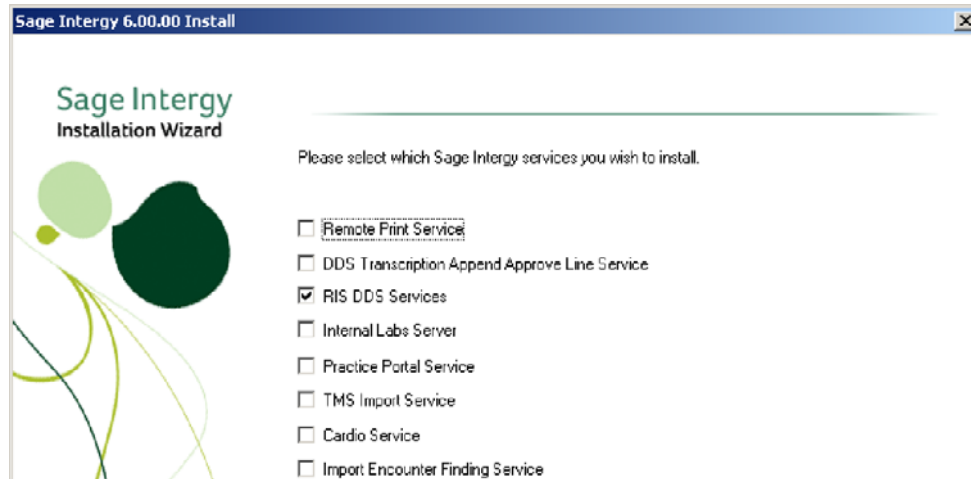
During the initial Sage Intergy server installation or upgrade process, the Transcription Writer component must be installed. In most circumstances DDS must be installed to a second, stand alone application server. For all installations, the following prerequisite conditions must be met before DDS may be installed on any server:

- Transcription Writer and one DDS option selected as installed components
- Microsoft Word 2003 or higher installed with all optional features included
- Castelle FaxPress application installed (for fax transmission)
- Sage Intergy installed as part of a Windows domain and Active Directory service accounts created

These installation prerequisites are described in more detail below.

Installed Sage Intergy Components

When installing a new stand alone server, make sure that only one of the DDS installation options is selected during the setup process:



Select only the DDS Transcription Append Approve Line services option, or the RIS DDS Services option. Do not select both checkboxes. Note that the Report Cleanup Service is not selected by default since this is not the primary database server. Select other serialized components as needed and proceed with a normal installation of Sage Intergy on a stand alone server.

For installation that occurs when adding DDS services to an existing Sage Intergy 7.00 server, you must manually execute the installation scripts. To complete this type of installation, run the following batch files:

- IntergyDDSApproveSvc.bat
- IntergyDDSCheckFaxSvc.bat
- IntergyDDSFaxSvc.bat
- IntergyDDSinboundSvc.bat
- IntergyDDSPrintSvc.bat

In a typical Sage Intergy installation, these installation scripts are found in the C:\Intergy\Code\Shared\Support\NTServices directory and may be executed from the command line or from Windows Explorer. These scripts should be executed on the server where DDS services will be installed.

Note that the Document Delivery monitor component of DDS is installed automatically no matter which method of installation is chosen.

Microsoft Word Installation

To use the Transcription Writer or the Document Delivery Service components of Sage Intergy, Microsoft Word must be installed on the server where DDS services are running. A full installation of Microsoft Word that includes all optional application components must occur before any Sage Intergy component is installed. Microsoft Office 2003 or higher is supported for use with Sage Intergy at this time. For detailed information on the installation of Microsoft Word and the Word Conversion Utility, refer to the Microsoft Office Resource Kit page at <http://office.microsoft.com/en-us/ork2003/CH011480631033.aspx>

FaxPress Hardware Installation

Installation of a Castelle FaxPress 2500 server or OpenText FaxPress 2L device and client application components is required for DDS implementations that will deliver transcriptions via fax. Configuration will differ depending on the type of hardware that is installed in the customer environment.

Castelle FaxPress 2500 devices

Castelle FaxPress 9.1 is the software version presently supported for use with the Castelle FaxPress 2500 device when Sage Intergy 7.00 is implemented. Note that both the FaxPress Client and the FaxPress SDK components must be installed to permit correct operation of DDS. When installing the FaxPress client components, use the following parameter values when prompted:

Line Settings:

- Imprint Terminal ID - Practice Name
- Local Fax Number - Phone number of connected line
- Dialing Type - Tone
- PBX Pre-Dial - Enter the numeric digits used for an outside line. For example, many sites require dialing '9' prior to dialing a remote phone number.
- Line Direction - Output only

Dialing Properties:

- Country Code - USA(1)
- Area Code - Area code of the practice
- Apply Dialing Rules - Select the checkbox

As a best practice, configure the Archiving function of the Castelle FaxPress 2500 to ensure continuous operation. Local storage should be configured for automatic maintenance so that there is always space available for daily fax transmission.

Note that for Sage Intergy On Demand (IOD) servers, support for Castelle FaxPress devices requires the installation of FaxPress 9.1 or higher on local computers at the customer site. Only the Print To Fax function of Sage Intergy and Sage Intergy EHR is supported. Document Delivery Server (DDS) functions are not supported at this time for IOD sites.

For detailed information on the installation of a Castelle FaxPress Server and related client software, refer to the vendor documentation website at <http://www.castelle.com/support/documentation/guides/default.htm>.

OpenText FaxPress 2L devices

OpenText FaxPress 2L devices use a web-based configuration and driver application that is integrated into the hardware. OpenText FaxPress Plus 6.1 is the software version supported for use with this hardware when Sage Intergy 7.00 is implemented. To support operation of DDS, the Standard print-to-fax FaxPress Client application component must be installed on client workstations. Do not install the FaxPress Web Client.

When configuring the OpenText FaxPress 2L device using the web-based configuration wizard, use the following settings when prompted:

Line Settings:

- Call Subscriber ID - Practice Name
- Local Fax Number - Phone number of connected line
- Dialing Type - Tone
- PBX Pre-Dial - Enter the numeric digits used for an outside line. For example, many sites require dialing '9' prior to dialing a remote phone number.
- Line Direction - Output only

Dialing Properties:

- Country Code - USA(1)
- Area Code - Area code of the practice

As a best practice, configure the Storage Reclamation function of the OpenText FaxPress 2L to ensure continuous operation. Local storage should be configured for automatic maintenance so that there is always space available for daily fax transmission. For most customer environments, a one-month interval may be configured.

Note that for Sage Intergy On Demand (IOD) servers, support for OpenText Faxpress devices requires the installation of Faxpress Plus 6.1 or higher on local computers at the customer site. Only the Print To Fax function of Sage Intergy and Sage Intergy EHR is supported. Document Delivery Server (DDS) functions are not supported at this time for IOD sites.

Note that OpenText FaxPress appliance hardware units are full PCs that have an embedded operating system installed. These devices may not be used as workstations, and Sage technicians must not install any additional software on this type of hardware. Use only the web-based configuration wizard to modify the settings on OpenText FaxPress 2L devices.

For detailed information on configuration and installation of the OpenText FaxPress 2L and related client software, refer to the vendor documentation content at the following URL:
<https://knowledge.opentext.com/knowledge/llisapi.dll/open/16512673>

Service Account Creation

For all DDS environments, a separate service account must be created for each Windows Service. This will permit DDS services to access printers and other network resources as required, and will allow the Sage Intergy application to determine which services are associated with each DDS resource. Log on to the Sage Intergy Server or other domain controller in the customer environment and open the 'Active Directory Users and Computers' console from the Administrative Tools menu. Create five user accounts with the following user logon names:

- DDSApprove
- DDSCheckFax
- DDSFax
- DDSInbound
- DDSPrint

Each of these accounts should be configured with the following settings:

- OU - <Sage IntergyDomainName>\Users
- First Name and Full Name - Same as logon name
- Password - int<license code>

- Profile Path - \\<Sage IntergyServerName>\users\%username%
- Group Membership - Domain Users, Domain Admins
- Log On As A Service right granted

Adjust these settings as necessary to suit the customer environment as appropriate. Make sure that password expiration and other security parameters are appropriately configured based on the Windows base configuration.

Install Verification

In previous versions of Sage Intergy, most installation procedures for DDS were performed manually using batch files and other command-line Windows configuration. For Sage Intergy 4.00 and higher, the majority of application installation processes have been automated. However, to verify correct installation of DDS you should check for the presence of the following files and system elements:

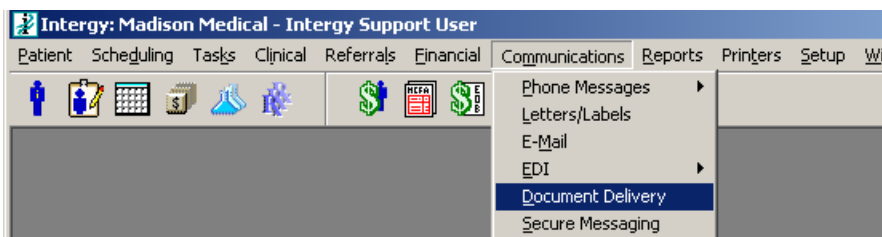
- Document Delivery Monitor
- DDS Windows Services

Use the following procedures to verify correct installation of DDS.

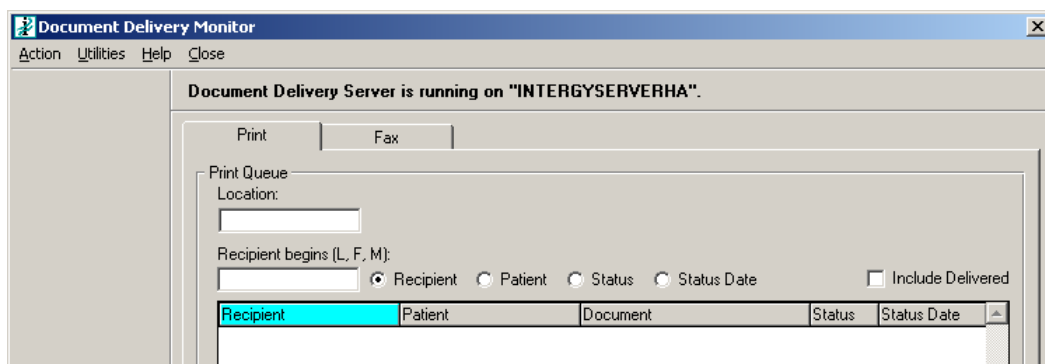
Document Delivery Monitor

Verify that the Document Delivery Monitor is operating correctly and indicates that the DDS Service is running.

1. Open the Sage Intergy Desktop and click on the Communications menu. Select the Document Delivery menu item.



2. The Document Delivery Monitor window will be displayed.



3. If DDS is correctly installed, the message 'Document Delivery Server is running on <Server Name>' will be displayed at the top of the window. In a new installation, no transcription reports or other documents will be listed in the print queue or fax queue.

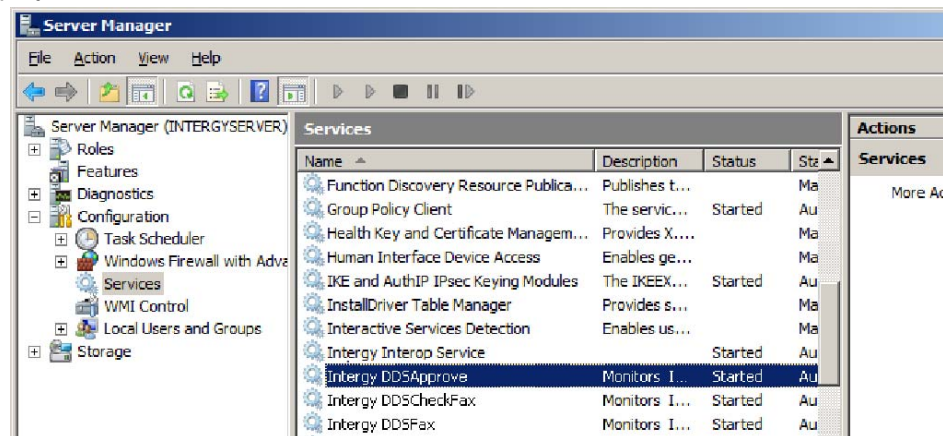
Note that the Document Delivery menu item will appear on the Communications menu of the Sage Intergy Desktop whether or not DDS is selected as an installed component.

DDS Windows Services

Verify that the DDS Windows services are installed correctly, and change the accounts used for authentication as needed.

Verify Installed Services

1. Open the Computer Management MMC panel from the Administrative Tools menu to view the installed Services on the server where DDS has been installed. Observe the displayed list of services:

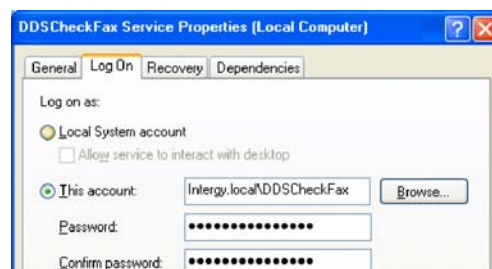


A successful DDS installation should include the following services:

- Sage Intergy DDSApprove
 - Sage Intergy DDSCheckFax
 - Sage Intergy DDSFax
 - Sage Intergy DDSInbound
 - Sage Intergy DDSPrint
2. The installing technician should set the appropriate services to start automatically, to have no dependencies on other services or applications, and to authenticate using the service accounts created in the step described on page 7-4. If necessary, use the customer serialization information to check which services should be enabled.

Change Authentication Account

3. To change the account used for authentication, right click on the service name and select the properties menu item, then click the Log On tab to display the authentication information.



4. Click on the This Account radio button and enter the domain and account name in the first field, and the password in the second and third fields. Make this change for all five services.

In single queue configuration, DDS will use only the DDSApprove service. If you are installing in single queue configuration, you must disable the other four services to improve performance. To accommodate future expansion or configuration changes, installed services should remain disabled but should not be uninstalled.

Configuration

After verifying that all DDS components are present and successfully installed, proceed with configuration of the Sage Intergy application for correct operation of DDS. This configuration will vary among practices depending on the printers installed and the providers to which documents must be transmitted. After reviewing these instructions, gather the appropriate information from the customer before making any application changes.

DDS configuration will follow these steps at a high level:

- Transcription printer setup
- DDS System Administration parameters
- Practice Administration printer setup
- Referring Provider Information setup

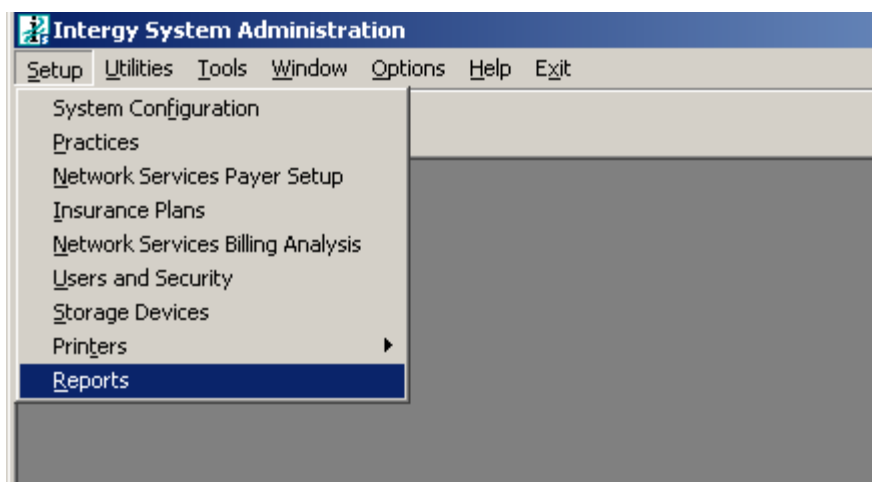
These procedures are described in more detail below.

Transcription Printer Setup

Before DDS can be used to produce printed documents, Windows printers must be configured as transcription report output destinations. To perform this configuration step, first make sure that printers are correctly connected as devices under Windows. For more information on configuring printers, refer to the Microsoft Knowledgebase article at <http://support.microsoft.com/kb/325860>.

Open Sage Intergy System Administration

1. After correctly adding print devices to the server, open the Sage Intergy System Administration desktop, click on the Setup menu and select the Reports menu item.



Open Report Maintenance

- The Report Maintenance window is displayed.

Report Maintenance

Utilities Reports Help Close

Reports

Code begins:

Report Code Report Name Class

Report Code	Report Name	Class
TMSErrorReport	Transcription Error Report	Transcription
TMSProductivityReport	Transcription Productivity Report	Transcription
TMSPurgeReport	Purge Transcription Documents Report	Transcription
TOSAltCode	Type of Service Report	Maintenance
Transcription	Print a Transcription	Clinical

Report Output Options

Report Code: Transcription Report Type:

Class: Clinical SubClass:

Report Name: Print a Transcription

Output Destination: ☐ Ask User ☒ Send to: ☐ Viewer ☒ Printer ☐ File

Printer

Printer Selection: ☐ Printer Class ☒ Specific Printer

Specific Printer:

File

File Directory: (ex. \\IntergyServer\IntergyReports\)

File Name: File Type: PDF

☐ Prompt user when report is run.

Copy Report...
New Report...
Edit Layout
Edit Options
Delete Report
Save
Cancel

Select the Transcription report code from the Reports pane, and then click on the Edit Options button to allow editing in the Report Output Options pane.

Add Printer as Report Output

- In the Output Destination section, make sure the Printer checkbox is selected as one of the available report destinations. In the Printer section, select the Specific Printer radio button and click on the drop-down button on the right side of the text field to display the Select System Printer window.

Select System Printer

Name begins:

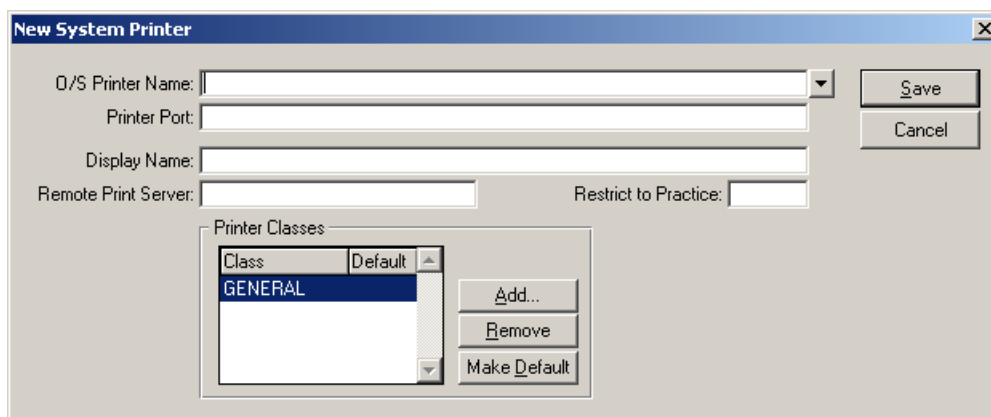
Name Printer Port Remote Print Server

Name	Printer Port	Remote Print Server
------	--------------	---------------------

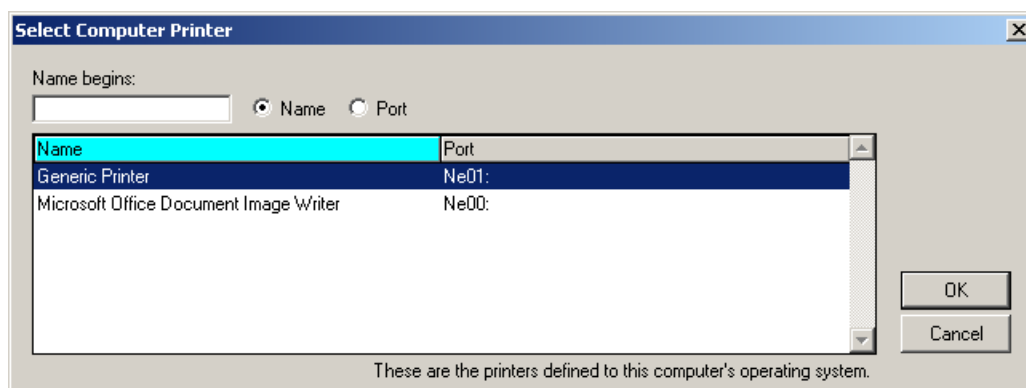
New...
OK
Cancel

- Note that in a new installation, no system printers are listed. Click on the New button to add a system printer for transcription printing.

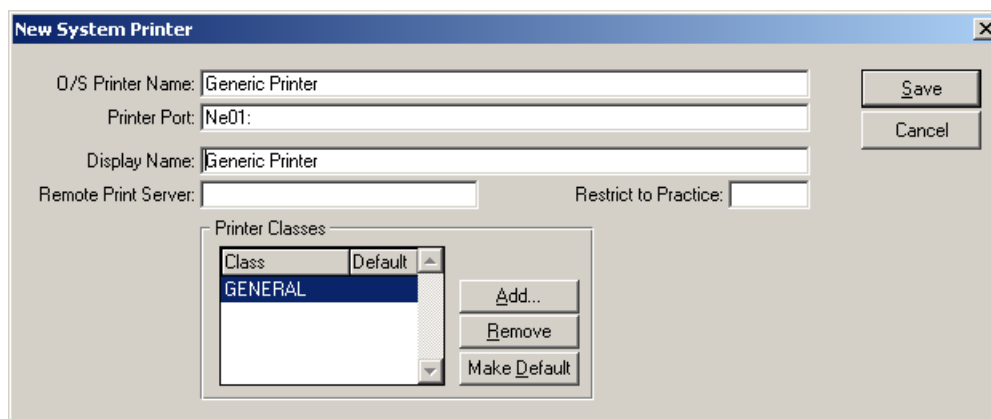
5. The New System Printer window is displayed.



6. Click on the drop-down button to the right of the O/S Printer Name field to select one of the printers configured for normal Windows printing. The Select Computer Printer window will be displayed.



7. Select the appropriate printer from the list and click on the OK button to return to the New System Printer window.



8. Note that the system printer parameters are automatically populated. Click on the Save button to return to the Report Maintenance window.

Note that the selected printer is now listed as the output destination.

Report Output Options

Report Code: Transcription Report Type: Clinical

Class: Clinical SubClass:

Report Name: Print a Transcription

Output Destination: ☐ Ask User ☒ Send to: ☐ Viewer ☒ Printer ☐ File

Printer

Printer Selection: ☐ Printer Class ☒ Specific Printer

Specific Printer: Generic Printer

Copy Report...

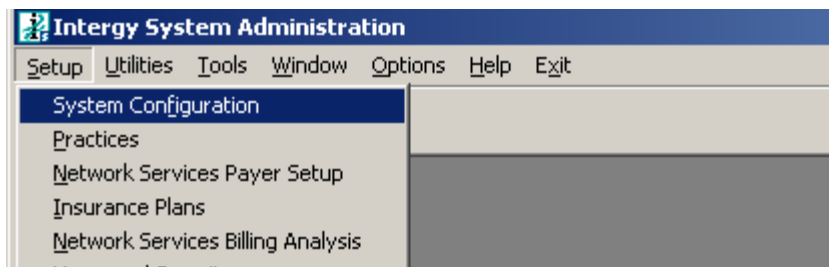
New Report...

- Click on the Save button to save the new settings to the Transcription report type. Click on the Close menu at the top of the window to close Report Maintenance.

DDS System Administration Parameters

After configuring transcription printers, specific DDS parameters must be defined by the technician.

- From the Sage Intergy System Administration desktop, open the Setup menu and click on the System Configuration menu item.



- The Sage Intergy System Configuration window is displayed.

System Configuration

Help Close

Parameters - General -> Document Delivery

Parameter name contains:

☐ Only Show Field Defaults

Parameter	Value
Use DDS to Process Window Envelope Fields	Y
DDS Fax Uses Drop Directory	N
DDS Fax Drop Directory Location	
Fax Server IP Address	
Fax Server User ID	
Fax Server Password	
Fax Server Software Location	
Fax Send Timeout	10
Fax Server Name	
Fax Server Port Number	
Generate Fax Cover Page	Y
Fax Cover Page Name	
Hardcopy Radiology Films for Referring Provider	N
Deliver Documents by Fax	N
Deliver Documents by Email	N

Edit

Set Fax Server Parameters

- Click on the Edit button to make changes to parameter data as needed. At a minimum, make sure that the following fields are populated:

- Fax Server IP Address - The numeric address of the Castelle FaxPress server on the customer's LAN.
- Fax Server User ID - The user name transmitted by the Castelle FaxPress client when connecting to the server.
- Fax Server Password - The password transmitted by the Castelle FaxPress client software when connecting to the server.
- Fax Server Software Location - The directory of the locally installed Castelle FaxPress client software. This text should use a specific drive letter.

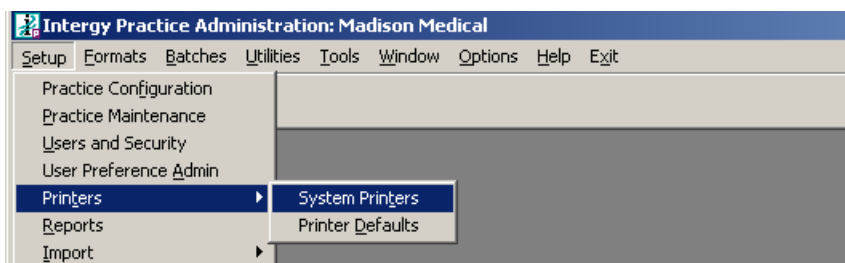
You will also configure default values for document delivery. Note the five rows indicating delivery of documents by Fax, E-mail, Courier, Mail, and HL7. Setting these defaults values to 'Y' or 'N' will cause providers to use the same value by default when they are entered or configured for the first time. Refer to page 7-14 for more information on configuring provider preferences.

4. Other fields may be populated to match the specific requirements of the customer. In many cases, you will enter the appropriate data for the following fields:
 - DDS Fax Uses Drop Directory and DDS Fax Drop Directory Location may be configured for implementations of DDS that support special configurations of Sage Intergy, such as Sage Intergy On Demand. Refer to the Alternative Outbound Fax Configuration section beginning on page 7-16.
 - Generate Fax Cover Page and Fax Cover Page Name may be configured for customer sites that have a regulatory or legal requirement for specialized cover pages.
 - Note that Fax Server Name and Fax Server Port Number should be left blank.
5. Click on the Save button after making changes. Close the System Configuration Menu and close the System Administration desktop when finished.

Practice Administration Printer Setup

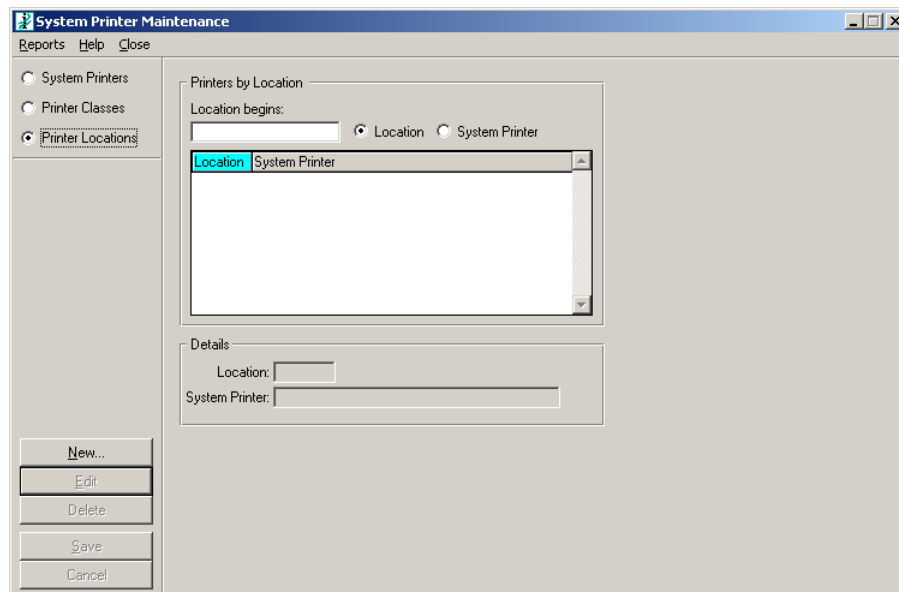
After configuring DDS system administration parameters, it is necessary to configure specific system printers for the customer site. Because different practices within a single serialized Sage Intergy database may be located in different offices or different geographic locations, a separate printer must be configured for each practice.

1. At the Sage Intergy Practice Administration desktop, click on the Setup menu and open the Printers menu, and select the System Printers menu item.



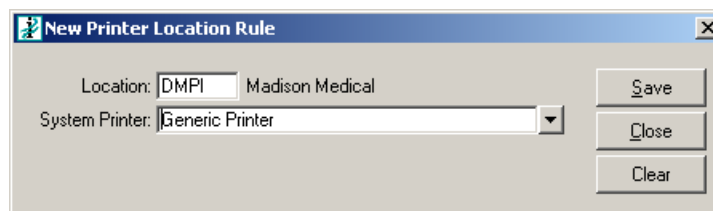
System Printer Maintenance Setting

- The System Printer Maintenance window is displayed.

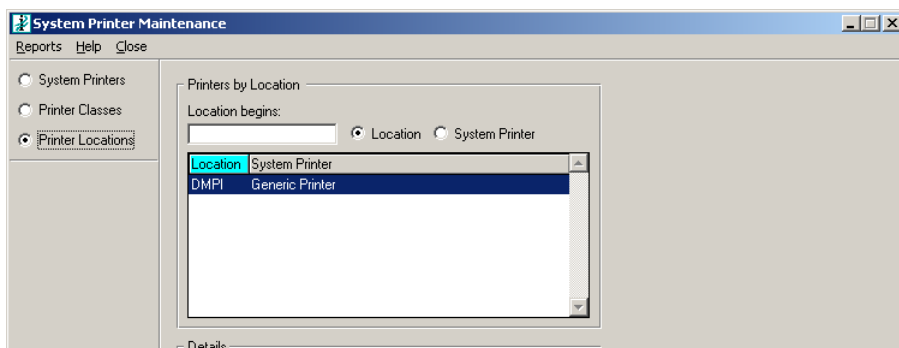


Create Printer Location Rule

- Click on the Printer Locations radio button, and then click on the New button to display the New Printer Location Rule window.



- Populate the Location field with the Appointment Location code, and use the drop-down button to the right side of the System Printer field to select one of the printers configured during the Transcription Report setup step. The Appointment Location code for each printer may be viewed from the Service Centers menu item in the Individuals and Companies menu found in the Sage Intergy setup.
- Click on the Save button for each printer to add, and click on the Close button when finished.
- When you return to the System Printer Maintenance window, note that the list of printer locations now includes the printers you have configured for this specific practice.

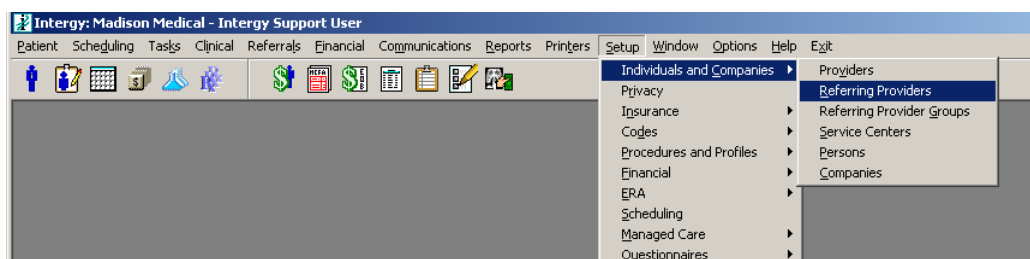


7. Click on the Close menu at the top of the window to close the System Printer Maintenance window.
8. Repeat these configuring steps for each practice that will make use of the DDS system. Close the Sage Intergy Practice Administration desktop when finished.

Referring Provider Information Setup

After all printers are configured correctly, the final step in DDS configuration is the entry of referring provider contact information. Specifically, fax numbers for all possible document destinations must be correctly configured. DDS delivery attempts will produce error messages if fax numbers are incorrect or are not entered.

1. Open the Sage Intergy desktop as the support user and select the appropriate practice. Click on the Setup menu and open the Individuals and Companies menu, and select the Referring Providers menu option.



2. The Referring Provider Maintenance window is displayed.

 The screenshot shows the "Referring Provider Maintenance" window. The title bar is "Referring Provider Maintenance". The menu bar includes Reports, Help, and Close. On the left, there is a sidebar with radio buttons for Details (selected), Specialties, IDs, Marketing, and Preferences. Below the sidebar are buttons for New..., Edit, Deactivate, Save, and Cancel. The main area is titled "Referring Provider:" and has a dropdown menu. Below this, there is a "Details" section with various input fields: First, Middle, Last, Suffix, SSN, 1st Lang, 2nd Lang, Class, Group, Address, City, State, Zip Code, Country, and Email. At the bottom, there is a table with three columns and three rows: Office, Mobile, and Pager.

In a new installation, no providers will be defined by default.

Enter New Providers

3. After gathering the required information about the referring provider, click on the New button to enter a new provider. The New Referring Provider window will be displayed.

New Referring Provider

First: John SSN: - -

Middle: Jacob 1st Lang: ENG

Last: Jingleheimerschmidt 2nd Lang: FRN

Suffix: IV Class:

Group:

Address: 123 Washington Ave City: Springfield

State: MA

Zip Code: 01118 Country: US

Email:

Payer		
Answering Serv		
Fax	(202) 555-1234	

Save Close Clear

4. Note that the table at the bottom of the window contains several rows for the purpose of recording multiple phone numbers. For each provider added, make sure that the Fax field is correctly populated. Do not enter the long distance prefix or any outside-line dialing code in this field. Click on Save to save each provider added, and click on the Close button when all provider data entry is complete.
5. Note that the providers entered now appear on the Referring Provider Maintenance window and may be selected from the drop-down button to the right side of the Referring Provider field:

Referring Provider Maintenance

Reports Help Close

Referring Provider: Jingleheimerschmidt, John Jacob IV

Details

First: John SSN:

Middle: Jacob 1st Lang: ENG

Last: Jingleheimerschmidt 2nd Lang: FRN

Suffix: IV Class:

Group:

Address: 123 Washington Ave City: Springfield

State: MA

Zip Code: 01118 Country: US

Email:

Fax	(202) 555-1234	
Office		

New... Edit Deactivate

Override Default Values If Necessary

- For each provider that will receive documents via DDS, select the provider and then click on the Preferences radio button to display the Referring Provider preferences window.

Preference	Default Value	Provider Value
Generate Fax Cover Page	Y	
Fax Cover Page Name		
Hardcopy Radiology Films for Referring Provider	N	
Deliver Documents by Fax	N	Y
Deliver Documents by Email	N	
Deliver Documents by Courier	N	
Deliver Documents by Mail	N	
Deliver Documents by HL7		

Note that each row in the Preferences table includes a default value. These default values were defined in the DDS settings on the Sage Intergy System Configuration window as described on page 7-12. To override these values, select the appropriate row and set the Provider Value column field to 'Y' or 'N' as required. Click on the Save button to save these settings, and repeat this step for each provider as required.

Note that delivery by fax will automatically transmit documents through the Castelle Fax server. Delivery by mail or courier will produce a normal print job. Delivery by e-mail is not supported in this version of Sage Intergy.

Upgrades

When upgrading from Sage Intergy 3.xx or 4.xx, the best practice is to install DDS to run as a single Windows service. Follow the same instructions used for a new installation.

In some cases, the customer site may require that the original DDS installation continue to operate in the GUI application mode. When upgrading the stand alone Sage Intergy server where DDS is installed, both the automatic upgrade process and the manual upgrade using DVD media will result in a stand alone Sage Intergy 7.00 application server with the DDS GUI application installed correctly. However, the installing technician should be aware of the following issues with this upgrade method:

- DDS may be accessed using desktop icons in multiple user profiles. The Sage Intergy installation process will only update shortcuts for the account used to perform the upgrade. Search for these shortcuts in other user profiles and apply these changes manually to ensure that all other user's shortcut locations and parameters are also updated.
- DDS may not be installed or upgraded on the primary Sage Intergy database server. In all environments, DDS must be installed on a standalone server.

Contact Sage support if you encounter problems with the upgrade process.

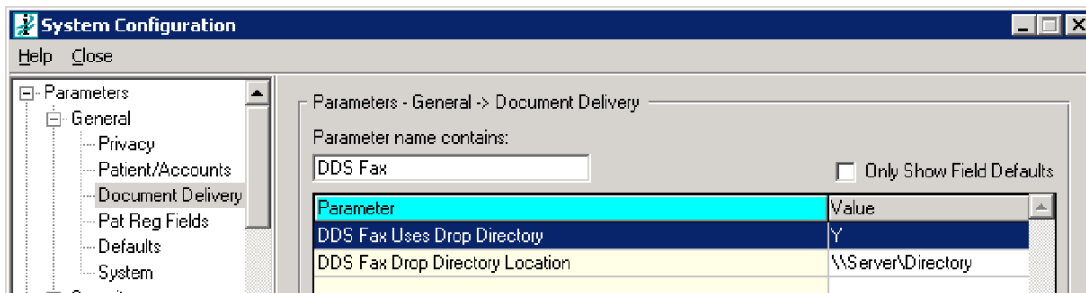
Alternative Outbound Fax Configuration

When using a fax solution other than the Castelle FaxPress server, it may be necessary to configure an alternative outbound fax configuration for specific implementations of DDS. Use

of an outbound fax drop directory allows DDS to create image files in a UNC file share, which are then processed by a third-party fax application. This type of configuration requires Sage Intergy System Configuration changes.

Note that the use of the outbound fax drop directory is considered a blind transmission solution. Unlike normal DDS fax transmission using the Castelle FaxPress product, no error messages are returned to the Sage Intergy application in the event of fax transmission failure.

To set up alternative outbound fax configuration for Sage Intergy, open the Sage Intergy System Administration desktop and select the System Configuration item from the File menu.



Change the following Document Delivery parameter values:

- DDS Fax Uses Drop Directory - Change this value to 'Y'.
- DDS Fax Drop Directory Location - Enter the shared folder location configured for use by the third party fax application. In most installations, this will be '\\<Server Name>\<Folder Name>' on the customer's local area network. Make sure that the 'DDSFax' service account on the Sage Intergy database server has the appropriate read and write permissions to add files to this folder.

Save these changes and exit the Sage Intergy System Administration desktop, then stop and restart all DDS windows services.

Remember to configure the third-party fax software to use the contents of the drop directory to transmit faxes. Refer to the vendor documentation for specific information on configuration or setup of third-party fax solutions.

Next Steps

As a best practice, immediately after installation of the Document Delivery Server you should test transmission of documents via fax, or approval of transcriptions as needed. Make sure that all documents are clearly labeled as test items so that actual transactions are not submitted or recorded. If installing other Sage Intergy application components or services, proceed with installation of those items as required.

Chapter 8: TMS Import Service Configuration

When installing the Sage Intergy application server, other Sage Intergy applications may be installed successfully without additional configuration. However, the TMS Import Service supporting Transcription Management System (TMS) and Imaging bulk import requires manual configuration before it can be used. This service may be implemented on any Microsoft Windows server in the customer environment, but is typically installed on the Sage Intergy server.

TMS allows a Sage Intergy customer to organize and process transcription data from a wide variety of sources. However, some documents may not be generated using the Sage Intergy Transcription Writer tool within Sage Intergy. To facilitate batch processing of externally generated TMS documents, you may elect to implement the TMS Import Service.

Most Sage Intergy systems are implemented with FileX or Sage Intergy Storage Server to support the organization and presentation of Imaging data. To support image documents that are imported from other sources, you may elect to implement the TMS Import Service

The TMS Import Service operates as a background process that checks for the presence of a delimited text file in a shared folder. Each line of this text file describes a transcription document or imaging document that has also been copied to this shared folder, either by an external application, by another transcription client or by a third-party imaging product. Once all the records are imported, the text file is deleted and the service waits for a new file to be generated.

This installation step is performed by manually creating a shared folder and editing a text configuration file.

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Typical Installation Settings

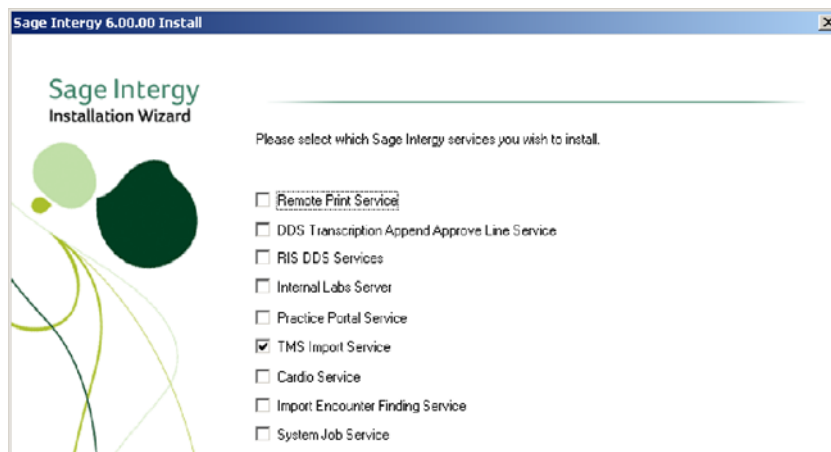
The following table lists typical installation settings used for the Transcription Management System Import Service in most environments. However, some settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Shared Folder Settings	Local Folder on server	C:\Intergy\AutoImport
	Share Name	\\IntergyServer\AutoImport
TMSSvcMan.ini File	Line 10 - ImportPath	C:\Intergy\AutoImport
	Add New Line 11 - ImagingUser	Select a Sage Intergy logon to identify Imaging tasks

Directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

Sage Intergy Database Server Installation

To install the TMS Import Service, a checkbox is selected as part of the Sage Intergy application install process as described on page 2-7. This option is displayed on the Sage Intergy services installation window.



To support TMS import functions, the Transcription Writer component and the associated Microsoft Word templates must also be installed as prerequisite components. To support Imaging import functions, either FileX or Sage Intergy Storage Server must already be implemented in the customer environment.

For installation that occurs when upgrading to Sage Intergy 7.00, or when adding the TMS Import Service to an existing Sage Intergy 7.00 server, you must manually execute the 'IntergyTMSSvc.bat' installation script. In a typical Sage Intergy installation, this installation script is found in the C:\Intergy\Code\Shared\Support\NTServices directory and may be executed from the command line or from Windows Explorer. This script will be executed on

the server or workstation where the TMS Import Service will operate to complete this type of installation.

Note that the TMS Import Service may be installed on a stand alone server or workstation as a separate component, instead of on the primary Sage Intergrity database server.

Create Shared Folder and Apply Permissions

After the installation process completes successfully, it is necessary to configure a shared folder so that the TMS Import Service can receive transcription files from external sources. The preferred location for this folder is C:\Intergy\AutoImport on the server or workstation where the TMS Import Service is running. This directory will be created automatically by the service if it is not present.

When sharing this folder, \\IntergyServer\AutoImport is the preferred share name. Sharing must be configured manually by the installing technician through Windows Explorer. When configuring security on this shared folder, make sure that all Sage Intergrity client workstation users are able to read from and to write into this share from the network. Also, make sure that the external transcription application is submitting the appropriate credentials to access this shared folder. Allowing the Everyone security group to have unlimited read and write access is not recommended.

For more information on configuring security for shared folders under Windows Server, refer to the following Microsoft KnowledgeBase support articles:

<http://support.microsoft.com/kb/324267/en-us>

<http://support.microsoft.com/kb/323420/en-us>

Modify TMSSvcMan.ini File

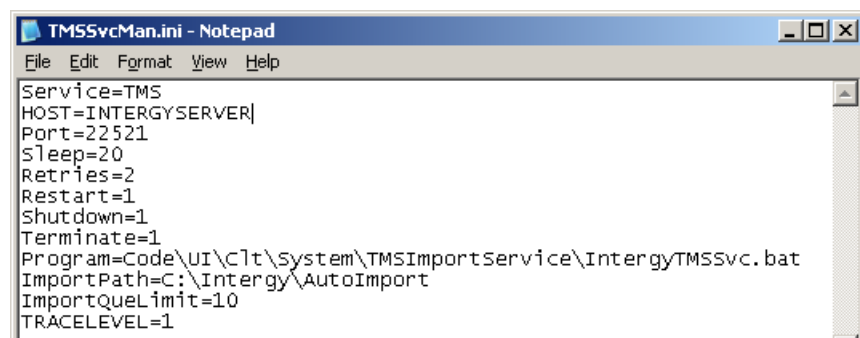
Modification of the TMS Import Service configuration file is required under the following conditions:

- The default shared folder location is not used.
- Imaging import services will be supported.

These modifications are described in more detail below.

Shared Folder Location

If your shared folder is not in the preferred location of C:\Intergy\AutoImport, you must edit the TMSSvcMan.ini file in the C:\Intergy folder to reflect this change. The TMS Import Service refers to this file for several configurable parameters, including the location of transcription import information.



Note that the tenth line of this file defines the ImportPath parameter. Open this file in Windows Notepad on the server or workstation where the TMS Import Service has been installed, and change the name of this directory as required. Save the file after your changes have been completed.

Imaging Configuration

To support the import of Imaging files, an additional parameter must be entered into the TMSSvcMan.ini file in order to identify a Sage Intergy user to associate with Imaging tasks. Add the 'ImagingUser=xxxx' value immediately below the ImportPath line, and specify the name of a Sage Intergy user that may be used to identify Imaging tasks. Do not use the 'sysadm' or 'support' users for this value.

Configure External Transcription Application

Normally, transcription information will be entered from Sage Intergy clients using Microsoft Word and the Transcription Writer tool. When transcription files are accessed by the TMS Import Service, an external transcription application must create a text file that uses data from the transcription tables to define how the files are processed. A typical example of a transcription import text file is given below:

OFC,10,John Doe,DF,Import Test 1,11/09/2008,Import1.doc,N,TRANS,1,271

OFC,10,John Doe,DF,Import Test 2,11/09/2008,Import2.doc,N,TRANS,1,271

OFC,10,John Doe,DF,Import Test 3,11/09/2008,Import3.doc,ARC,TRANS,1,

OFC,10,John Doe,DF,Import Test 4,11/09/2008,Import4.doc,ARC,TRANS,1,

The TMS Import Service will process any file with the 'txt' extension as a transcription import file. This extension distinguishes this type of file from the imaging import file, which uses a different extension and specifies images for import. The rest of the file name is not considered when processing import files, only the location of the file in the shared folder. This text file must have eleven comma-delimited columns, which are described in the table on the next page:

Table 1: Transcription Import Text File format

Column	Description
1 - Practice Code	A four character code that defines each unique practice. This field may be left blank if Sage Intergy is installed for only one practice. The Practice Code may be viewed from the Practice Management window in the Sage Intergy System Management desktop.
2 - Patient Number	This is the unique numeric code automatically generated by Sage Intergy when a patient record is entered for the first time. This data may be viewed from the Sage Intergy Desktop under the Patient Number menu. This is different from the PatientID code, which is used to identify a patient as a member of an insurance plan and is not generated by Sage Intergy.

Table 1: Transcription Import Text File format

Column	Description
3- Patient Name	A field entered for reporting purposes only. This field may contain text only and may not include punctuation or non-alphanumeric characters. Because TMS uses the Patient Number field to associate the imported data with the appropriate patient record, the Patient Name field in the import file is entered for informational purposes only and will usually not match the names stored in Sage Intergy.
4 - Document Manager Code	An alphanumeric string that defines the staff member who is associated with entering or processing the transcription document. When you view the Transcription Catalog Entry window from the Transcription portion of the Sage Intergy desktop, this field is shown as the Document Manager field and corresponds to the Sage Intergy username of the staff member in question.
5 - Document Description	A text string with a user-generated description. This field does not correspond to any Sage Intergy data field.
6 - Reference Date	A reference date assigned to the transcription document. This field has eight numeric characters with slash delimiters, in the format MM/DD/YYYY with prepended zeroes in front of single-digit months and days
7 - File Name	The name of the file found in the shared folder that will be imported. File names should have no directory prefix and should include the three-character extension at the end.
8 - Document Status	<p>This single-character field indicates the status of the transcription document and indicates how TMS will import the file:</p> <p>N - New document is being added</p> <p>C - Corrected document is being updated, which replaces an existing document</p> <p>ARC - Archived document is being added</p> <p>This field is case sensitive and should always be given in all upper-case letters.</p>
9 - Catalog Type	A five-character text string that indicates the how to index the file that is being added. This value will always be 'TRANS' to denote a transcription file. The 'OMDOC' type is no longer a valid catalog type. This field is case sensitive and should always be given in all upper-case letters.
10 - Priority	<p>A single-character numeric field indicating priority, which will affect the order in which transcriptions are processed by TMS. High priority transcriptions will be processed first, before lower priority transcriptions that are already in queue. Valid values are:</p> <p>1 - High</p> <p>2 - Medium</p> <p>3 - Low</p>

Table 1: Transcription Import Text File format

Column	Description
11 - Encounter Number	An optional field to define the encounter number. This field does not correspond to any value stored in Sage Intergy and is used for reporting purposes only.

As a best practice, an external transcription application should copy transcription documents to the shared folder before the transcription import text file is generated, so that the TMS Import Service does not try to copy files that are not yet present in the folder. Refer to the software vendor documentation for specific instructions on configuration of any third-party transcription tool.

Configure Microsoft Word 2007

If you are using Microsoft Word 2007 in the place of the native Sage Intergy Transcription Writer tool, special configuration steps must be completed in order to permit correct operation of TMS. Microsoft Word 2007 should be installed on the primary Sage Intergy database server, the server where TMS is installed, and on all client workstations where transcriptions will be processed. A custom template must also be created and copied to each device.

The following configuration steps must be completed to permit operation of Microsoft Word 2007 as a transcription component:

- Set C:\Intergy\Code\UI\Clt\TMS\Template\IntergyAdmin\IntergyAdmin.dot as a trusted template on the server running TMS.
- Create a custom template with mail merge data and transcription content.
- Copy the custom template to all workstations into a trusted content directory called C:\Intergy\Trans

Refer to the following URLs for detailed configuration information related to setup of Microsoft Word 2007:

- Managing Office 2007 Templates - <http://support.microsoft.com/kb/924460/en-us>
- Adding tabs to custom templates - <http://support.microsoft.com/kb/826867>
- Creating trusted locations for Microsoft Word Templates - <http://office.microsoft.com/en-us/help/HA100319991033.aspx>

Configure External Imaging Application

Normally, Imaging data is submitted from Sage Intergrity clients using the Image Manager application and a scanner or other input device. When image files are accessed by the TMS Import Service for a bulk import, an external application must create a text file that defines how image files found in the shared folder are processed. A typical example of a imaging import text file is given below:

OFC,10,John Smith,PI,HOSP,image1.pdf,Hospital Record,03/25/2010,CM,DF

OFC,10,John Smith,PI,HOSP,image2.tif,Hospital Record,03/25/2010,CM,DF

OFC,10,John Smith,PI,HOSP,image3.tif,Hospital Record,03/25/2010,,

OFC,10,John Smith,PI,HOSP,image4.pdf,Hospital Record,03/25/2010,,

The TMS Import Service will process any file with the 'img' extension as an imaging import file. This extension distinguishes this type of file from the transcription import file. The rest of the file name is not considered when procesing import files, only the location of the file in the shared folder. This text file must have eleven comma-delimited columns, which are described in the table on the next page:

Table 2: Imaging Import Text File format

Column	Description
1 - Practice Code	A four character code that defines each unique practice. This field may be left blank if Sage Intergrity is installed for only one practice. The Practice Code may be viewed from the Practice Management window in the Sage Intergrity System Management desktop.
2 - Patient Number	This is the unique numeric code automatically generated by Sage Intergrity when a patient record is entered for the first time. This data may be viewed from the Sage Intergrity Desktop under the Patient Number menu. This is different from the PatientID code, which is used to identify a patient as a member of an insurance plan and is not generated by Sage Intergrity.
3- Patient Name	A field entered for reporting purposes only. This field may contain text only and may not include punctuation or non-alphanumeric characters.
4 - Infotype Code	An eight-character text field that defines the image information type. This field corresponds to the information type under which the image will be cataloged in the Sage Intergrity imaging system. Infotypes are created and maintained in the Document Info Type Maintenance window in the Sage Intergrity desktop.
5 - Category Code	An eight-character text field that defines the image category. This field corresponds to the category type under which the image will be cataloged in the Sage Intergrity imaging system. Categories are created and maintained in the Document Info Type Maintenance window in the Sage Intergrity desktop.
6 - Image File Name	The name of the file to be imported. This field should not also include directory information, since all files are assumed to be copied to the shared folder before the imaging import text file is created.

Table 2: Imaging Import Text File format

Column	Description
7 - Description	A text string with a user-generated description. This field corresponds to the Document.Description field in Sage Intergrity.
8 - Reference Date	A reference date assigned to the Imaging document. This field has eight numeric characters with slash delimiters, in the format MM/DD/YYYY with prepended zeroes in front of single-digit months and days
9 - Task Recipient User Logon	An optional field that defines a Sage Intergrity user logon name that will be the recipient of an Imaging review task.
10 - Staff Code	An optional field that defines the physician or doctor associated with the Imaging review task. This field corresponds to the Medman.staff.staffcode field in Sage Intergrity

Note that the ninth and tenth fields in the imaging import text file must still be delimited by commas even if they are blank. Do not omit the trailing commas for these fields when configuring the imaging import text file.

As a best practice, an external imaging application should copy image documents to the shared folder before the imaging import text file is generated, so that the TMS Import Service does not try to copy files that are not yet present in the folder. If you are using a third-party tool to generate this file, refer to the software vendor documentation for specific instructions on configuration.

Chapter 9: Terminal Services Client Installation

When installing the Sage Intergy database server, Windows Terminal Services is installed by default and may service up to forty user connections. However, some Sage customers may require that a larger number of users be able to connect to a remote desktop session and use the thin client implementation of Sage Intergy. In these cases, a separate terminal server must be implemented, and the Sage Intergy client must be installed separately.

When installing the Sage Intergy client to operate with Windows Terminal Services, several additional tasks must be completed in a specific order in order to ensure successful installation. Also, several third-party applications that operate with Sage Intergy require manual configuration as well. This chapter describes the work actions required for a successful implementation of the Sage Intergy client on a Windows server that provides Terminal Services client connections. Note that some of these instructions are specific to the Sage Intergy On Demand hosted solution.

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Typical Installation Settings

The following table lists typical settings used for Terminal Services in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Windows Settings	Windows Server 2008	Select Terminal Server role Select Terminal Server licensing Windows Component Select per-device licensing mode for typical installation
	Windows Server 2003	Select Terminal Server Windows Component Select Terminal Server licensing Windows Component Select per-device licensing mode for typical installation

Directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

Terminal Services Overview

All Windows 2003 and 2008 servers already operate Terminal Services in Remote Administration mode. In many customer environments, Terminal Services may be installed in application server mode instead so that Sage Intergy applications and administration tools are available without local installation on a workstation. Note that in this mode, Terminal Services requires additional licensing that must be purchased from Microsoft. Install Terminal Services in application server mode only when this is a stated requirement of the customer environment.

In most installations, Terminal Services is installed on a separate server. However, for sites with fewer than twenty users, the Sage Intergy database server may be used as the terminal server to reduce the amount of hardware implemented in the customer site. For most Sage Intergy customers with more than twenty serialized users, it is recommended that Terminal Services operate on a separate Windows server.

Note that additional installed RAM and client access license (CAL) purchases are required for all implementations of Terminal Services. Refer to the Sage Intergy 7.00 System Requirements document for detailed information on hardware and Microsoft product licensing.

For detailed information on the deployment and operation of Terminal Services, including the different application modes available, refer to the following Microsoft Technet article:

<http://technet2.microsoft.com/windowsserver2008/en/library/e36186b2-b745-4dc7-945a-c3b83dcadb401033.msp?mfr=true>

At a high level, you will complete the following tasks when implementing Terminal Services with a Sage Intergrity 7.00 installation

- Implement Windows server as member of Active Directory domain.
- Install Terminal Services and Licensing components of Windows.
- Set application install mode for each installation.
- Install Microsoft Office (for sites requiring transcriptions of DDS.)
- Install Sage Intergrity Client.
- Install third-party scanning or printing applications.

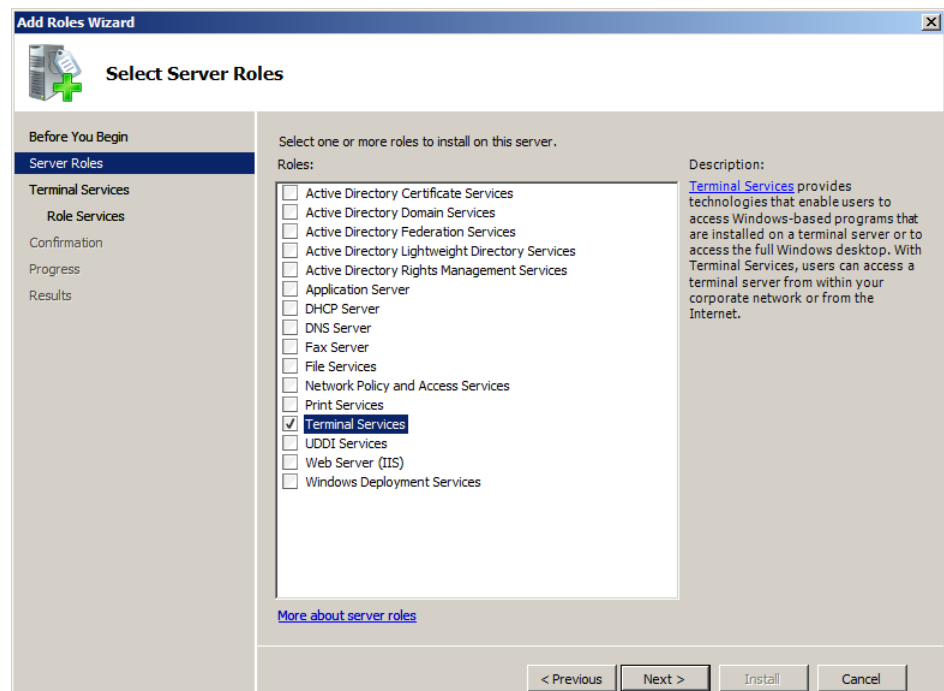
In order to serve applications to Windows terminal clients successfully, installation of individual applications requires an additional step. The Windows Terminal Server must be placed into a special application install mode, so that application settings are configured for individual terminal users and not for the administrator who is performing the installation.

Windows Component Selection

Installation of Terminal Services in application server mode is different depending on the version of the operating system.

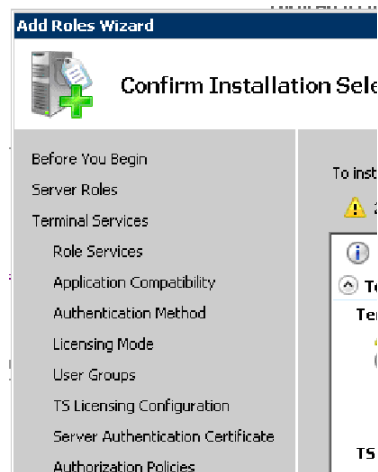
Windows Server 2008 Installation Options

1. In Windows Server 2008, the Initial Configuration Tasks window will be displayed after installation of the operating system has completed. Under the Customize this Server heading, click on the Add Roles link in the browser window to display Add Roles Wizard.



2. Fill in the checkbox for the Terminal Services option. Click on the Next button to proceed to the steps that must be completed to gather computing environment information.

- Note that the left pane is expanded to include additional steps that are necessary as part of Terminal Services installation.

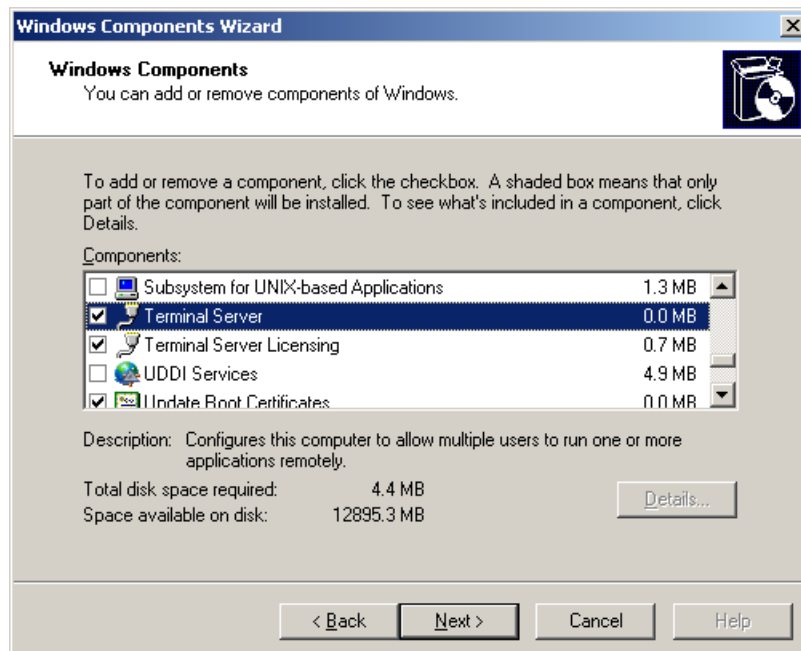


As you proceed through the installation of Terminal Services, select licensing options that apply to the customer site. Specify the installation of the Terminal Server Licensing components only if another licensing server is not already available in the customer environment. As a best practice, Terminal Services in application server mode should be installed on a server that is also a member of a Windows Active Directory domain.

When prompted to select between per user and per device licensing, you will normally select the per device option. However, you should verify the type of Terminal Services licensing that the customer has purchased before configuring this setting.

Windows Server 2003 Installation Options

- In Windows Server 2003, Open the Add/Remove Programs control panel and click on the Add/Remove Windows Components icon on the left side to display the Windows Components Wizard.



2. Fill in the checkboxes for the Terminal Server and Terminal Server Licensing options. Click on the Next button to proceed to the steps that must be completed to gather computing environment information.

Specify the installation of the Terminal Server Licensing components only if another licensing server is not already available in the customer environment. As a best practice, Terminal Services in application server mode should be installed on a server that is also a member of a Windows Active Directory domain.

When prompted to select between per user and per device licensing, you will normally select the per device option. However, you should verify the type of Terminal Services licensing that the customer has purchased before configuring this setting.

You will be prompted to reboot the server after successful installation of Terminal Services.

Windows Domain Requirement

As a best practice, customer computing environments that use Terminal Services for Sage Intergy client connections must also have a Windows Active Directory Domain in place. This is required for proper security and authentication of Sage Intergy users. Make sure that a domain controller is already installed in the customer environment, or that one is being installed as part of a new Sage Intergy installation with a terminal server. You may be required to manually join servers to this domain as they are implemented.

Application Install Mode Overview

In most customer environments, you will install several different client software packages for use on the terminal server. In addition to the Sage Intergy application, this may include Microsoft Office and third-party fax or print applications. For each separate installation process, it will be necessary to set the Windows server to application install mode. Performing this preparatory step allows the server to set environment variables for use with multiple client users.

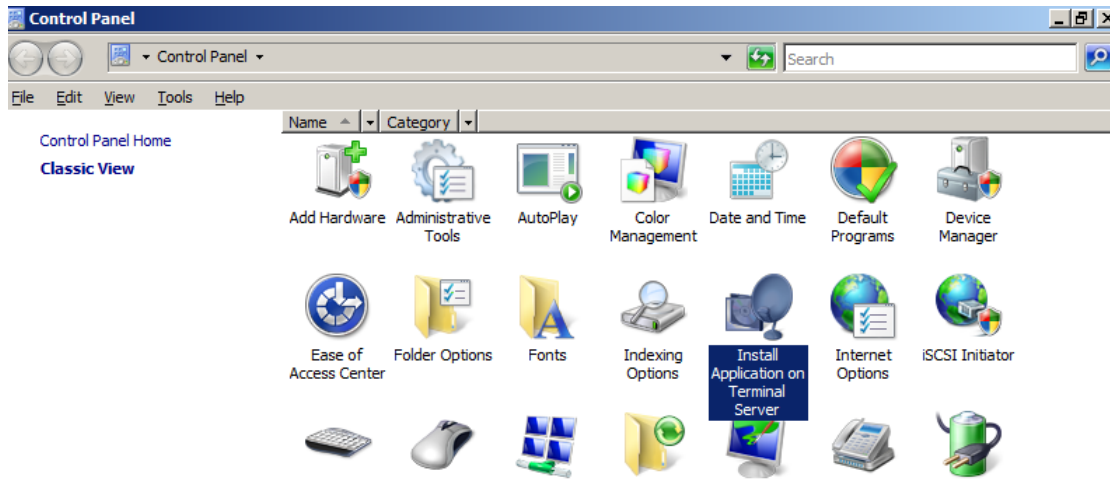
This process must be repeated for each individual application installation. The terminal server must be put into application install mode for each separate installation action. This is because terminal services must perform specific configuration changes at the end of each installation process. Remember to repeat the install mode setting for each installation of Microsoft Office, the Sage Intergy Client and any other application components.

All instructions assume that you are logged on to the terminal server with an account that has domain administration privileges. Note that application install mode must be activated both for new installations and for upgrades to existing applications.

Using Install Mode for Windows Server 2008

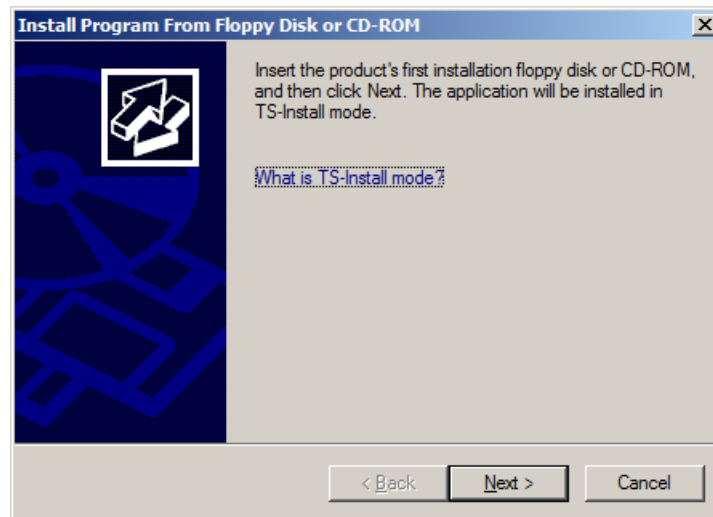
Configuring Windows Server 2008 for application install mode is a simplified process that automates many of the manual steps seen in previous operating system versions.

1. To install an application for use with terminal services, open the Control Panel and double-click on the Install Application on Terminal Server icon.



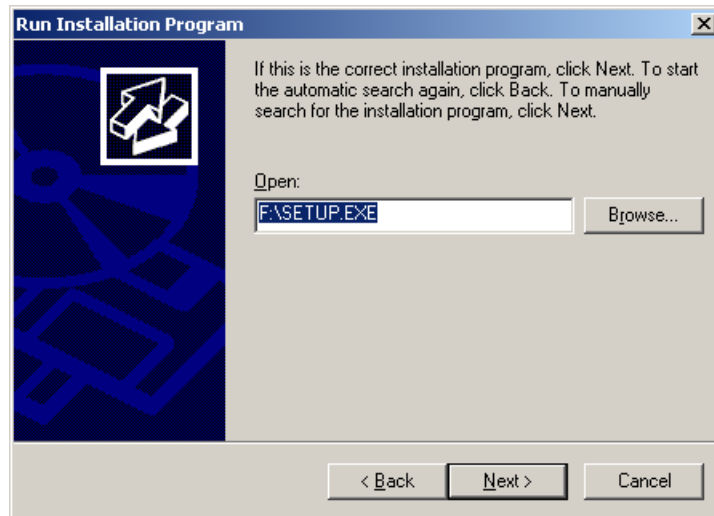
Clicking on this control panel automatically sets the server to application install mode and proceeds directly to the add program procedure.

2. The first window of the program installation procedure is displayed.



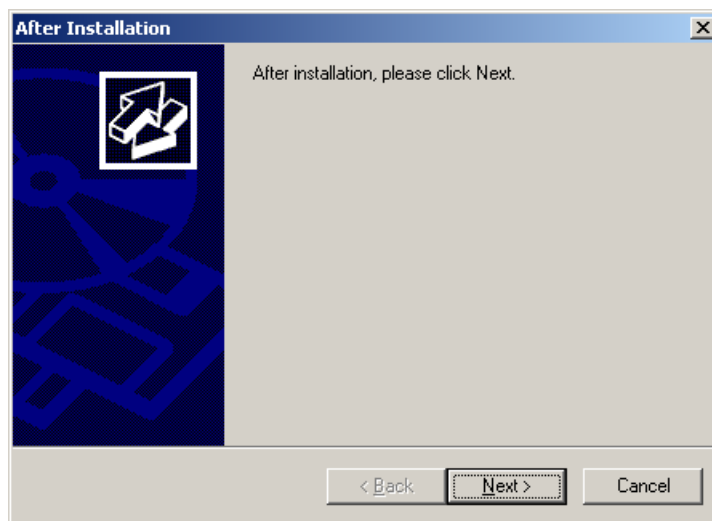
If necessary, click on the What is TS-Install Mode link to access the help content. Otherwise, insert the media or mount the network drive for the application you are installing and click on the next button.

3. The Run Installation window is displayed.



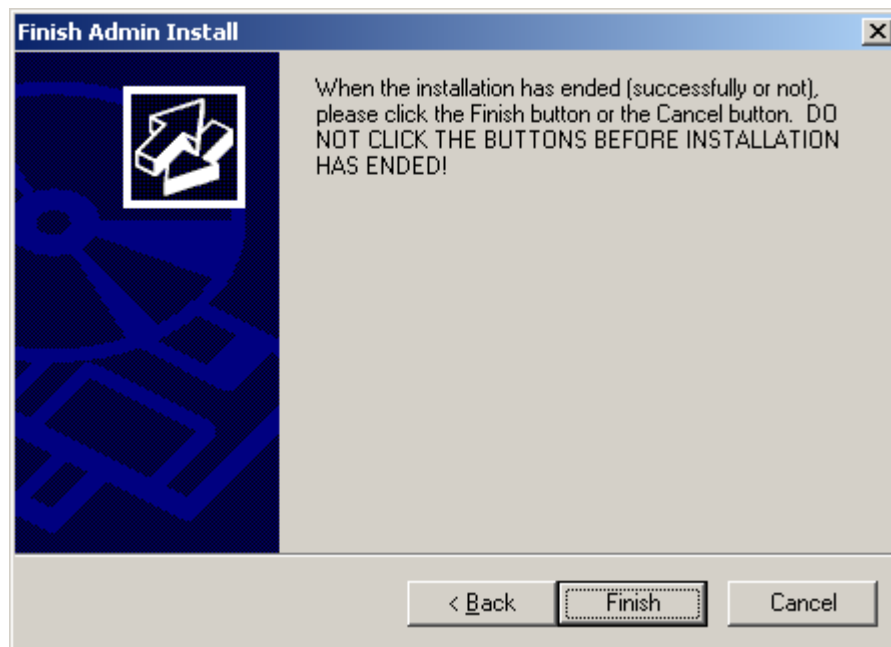
Follow the instructions to execute the installation program. For most applications, installation will proceed normally.

4. After normal installation has completed, the After Installation window prompt is displayed.



This window may be displayed before installation has completed. Do not click on the next button until all application installation steps have been completed, with the exception of server reboots. If you are prompted to reboot the server after application installation is complete, select the option that allows you to defer reboot.

5. Once you have clicked next, the Finish Admin Install window is displayed.



Read the prompt carefully and click on the Finish button only after installation has completed successfully. The server will automatically be set back to application execute mode after you click on the Finish button.

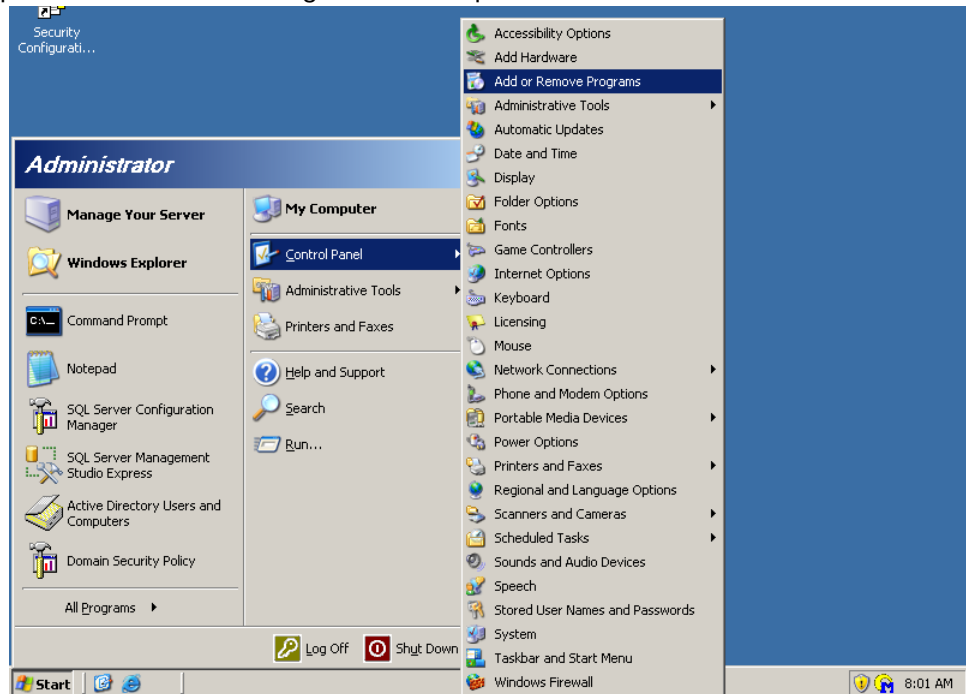
Note that this process must be repeated for each individual application installation. The terminal server must be put into application install mode for each separate installation action.

Using Install Mode for Windows Server 2003

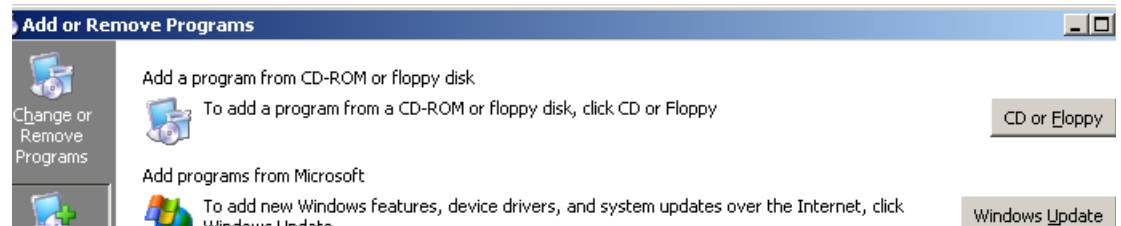
To install an application for use with Terminal Services clients under Windows 2003, use the following process.

Set Application Mode to Install

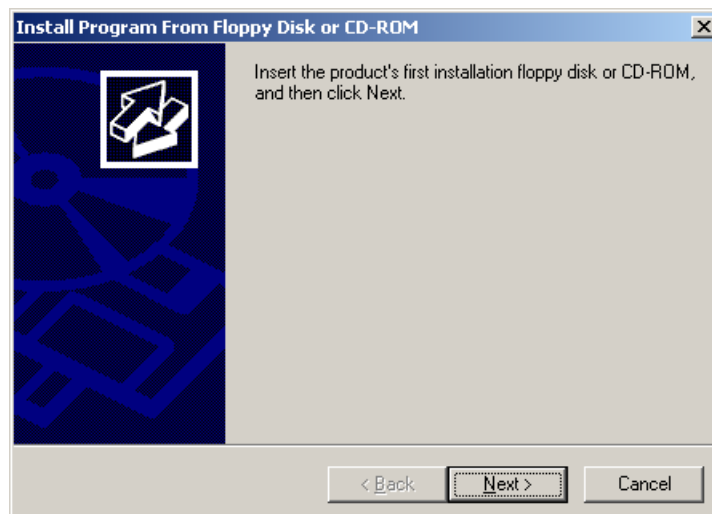
1. Open the Add/Remove Programs control panel.



2. Click on the Add New Programs icon in the left pane of the control panel. The add programs options menu is displayed.



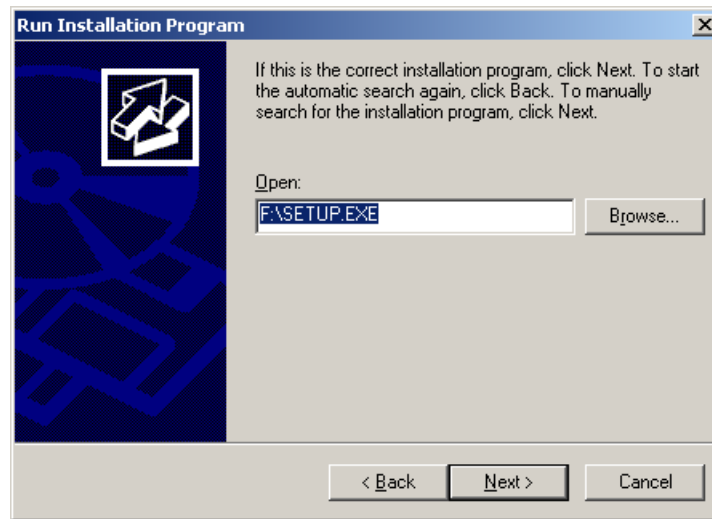
3. Click on the CD or Floppy button to proceed to the next step. The first window of the program installation procedure is displayed.



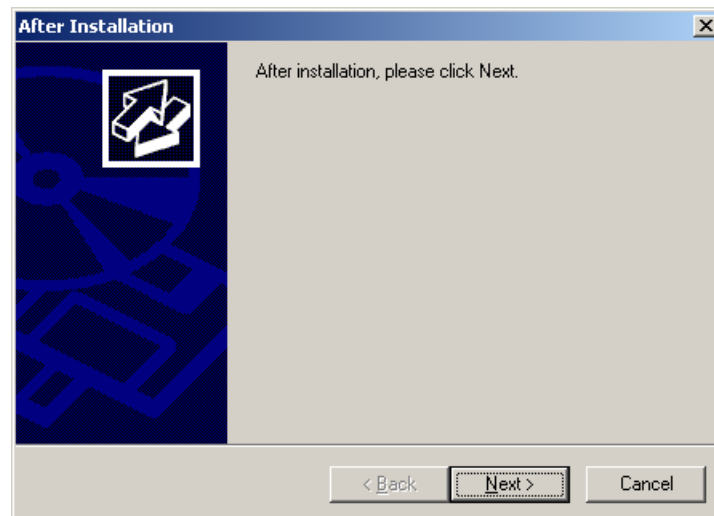
Use of the Add/Remove programs control panel places the server in install mode.

Insert Install Media

4. At this point, insert the media or mount the network drive for the application you are installing and click on the next button. The Run Installation window is displayed.



5. Follow the instructions to execute the installation program. For most applications, installation will proceed normally. After normal installation has completed, the After Installation window prompt is displayed.

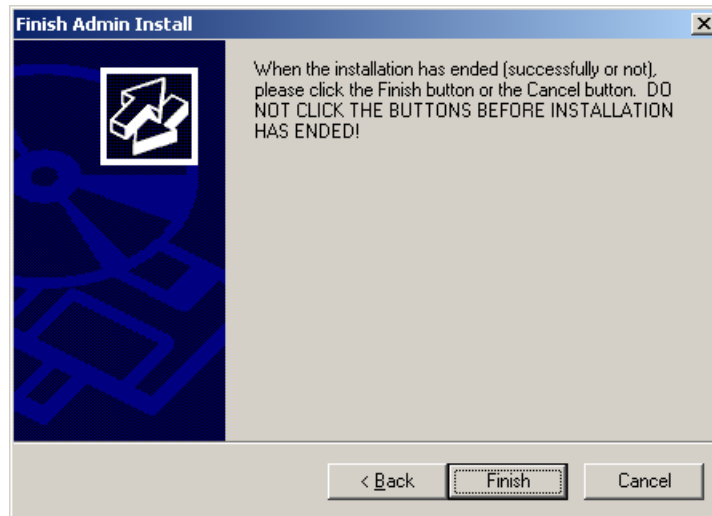


This window may be displayed before installation has completed. Do not click on the next button until all application installation steps have been completed, with the exception of server reboots.

Delay Reboot and Proceed with Terminal Services Installation

6. If you are prompted to reboot the server after application installation is complete, select the option that allows you to defer reboot.

7. Once you have clicked next, the Finish Admin Install window is displayed.



Read the prompt carefully and click on the Finish button only after installation has completed successfully. Clicking on the Finish button places the server back into execute mode.

Note that this process must be repeated for each individual application installation. The terminal server must be put into application install mode for each separate installation action.

Installing Microsoft Office

Terminal server environments where transcriptions or DDS are in use will require Microsoft Word to be installed prior to the installation of the Sage Intergy client. After putting the server into application install mode, installation of Microsoft Office is identical to a normal installation. Refer to the Sage Intergy 7.00 System Requirements document for more information about compatibility and requirements for Microsoft Office.

Installing the Sage Intergy Client

Installation of the client workstation components of Sage Intergy 7.00 on a terminal server differs from previous versions. Read this section carefully before proceeding with installation of the Sage Intergy client.

Automatic Upgrade

The automatic upgrade is normally completed by opening the Sage Intergy client and responding to the prompt to execute the RMS package. When performing this type of upgrade on a terminal server, you must log on the Windows console as the local administrator.

For Windows Server 2008, do not use an RDP session for automatic upgrades, and do not use any domain user or any other member of the server administrator security group. Do not use the Sage Intergy Support user, which is usually configured as a domain user and not as the local administrator.

Manual Upgrade

When performing a manual upgrade, you must log on the Windows console as an administrator. Do not use an RDP session for manual upgrades of a terminal server.

After placing the terminal server into application install mode, installation of the Sage Intergy client and stand alone application server functions is identical to the procedure described in Sage Intergy Client Installation section of this document.

Note that in previous versions of Sage Intergy, it was necessary to specify a temporary folder drive letter. For Sage Intergy 7.00, terminal server client installations are configured to use operating system environment variables to determine the location of an appropriate temporary folder or drive.

Installing Remote Scan software

Installation of the Remote Scan software requires configuration unique to each customer site, depending on the scanners installed and the number of clients in use. Remote Scan may be installed in a server configuration or a client configuration. It is important to note that the Remote Scan server refers to the computing device which is attached to a scanner. The Remote Scan client refers to the desktop session where scanned images are viewed. For this reason, in most installations a Remote Scan Server is a Windows XP or Vista workstation where a USB scanner is attached. The Remote Scan Client is therefore installed on the Terminal Server, where client connections are being made. Make sure that you understand the distinction and that the correct software is installed in both instances.

For more information on the installation and configuration of the Remote Scan software, refer to the following vendor web site URLs:

- Remote Scan Server documentation - <http://www.remote-scan.com/installation-server.php>
- Remote Scan Client documentation - <http://www.remote-scan.com/installation-client.php>
- Remote Scan general installation and technical support - <http://www.remote-scan.com/installation.php>

Scanner configuration for IOD

Configuration of scanner devices for Sage Intergy On Demand (IOD) servers is identical to the process for all Sage Intergy terminal server implementations. Refer to the Remote Scan installation instructions on the previous page for information on the Remote Scan product.

The Remote Scan client software is already installed on Sage Intergy On Demand servers. Sage technicians may be responsible for installation of the Remote Scan server software on IOD workstations where scanner hardware is connected.

Note that when user accounts are created on the IOD server after the Remote Scan client software has been installed, scanning functions will not be available. This is because new user profiles do not include the Remote Scan application components. To allow new users to use scanners, Sage technicians must also copy four files and create a directory in the home directory that is configured when a new user account is created. These items are:

- TWUNK_16.exe
- TWUNK_32.exe

- twain.dll
- twain_32.dll
- Twain_32 (the directory name)

If necessary, copy all five items from an existing user home directory to the home directory of any newly created users that require the use of scanning functions.

Card Readers

To support the use of card readers, Remote Desktop local resource redirection must be activated for Plug And Play (PnP) devices. This configuration occurs on the local client workstation and not on the Sage Intergy server. This type of configuration also applies to Sage Intergy On Demand systems.

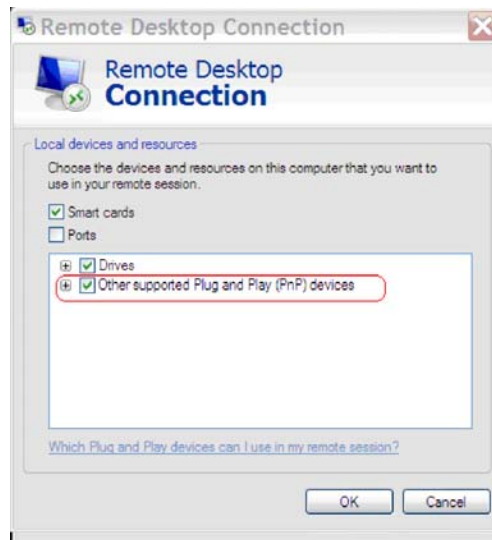
On the client computer where the remote desktop connection is initiated, edit the properties of the remote desktop shortcut. Click on the Local Resources tab to display the Local Devices and Resources configuration pane.



By default, only configuration settings for Printers and Clipboard contents are displayed.

Note the Options drop-down menu at the bottom of the Remote Desktop Connection properties window. Click to expand this menu and select the 'Apply Windows Key Combinations' in the Keyboard properties for the local computer.

Click on the More button to display other device options.



Select the checkbox for 'Other support Plug and Play devices'. Click on the OK button to exit the window, and then return to the Remote Desktop Connection properties window and save the changes. You have successfully enabled support for card reader devices under Sage Intergy On Demand.

Note that the MAGTEK Model 21040145 card reader device is not supported for use in Sage Intergy On Demand. Refer to the Sage Intergy system requirements document for a full list of supported peripheral devices.

Chapter 10: Type II Database Conversion

New implementations of Sage Intergy 7.00 are installed with the Type II database by default. This database variant is an improved structure and arrangement of the Progress database that prevents scattering of table blocks. Also, database extents and tables have been renamed for ease of troubleshooting and logging.

When upgrading an existing Sage Intergy site to version 7.00 from version 5.50 or older, the original Type I database structure is preserved. While Sage Intergy 7.00 supports both Type I and Type II database implementations, as a best practice technicians should schedule a conversion to the Type II database for all upgraded Sage Intergy sites. This chapter describes the preparation and execution of the Type II database conversion for all customer sites that are upgraded to Sage Intergy 7.00.

Type II Database Conversion Overview	10-2
Stop Services and Enter Maintenance Mode	10-2
Execute Database Dump and Load	10-3
Start Services and Test Client Connectivity	10-6
Next Steps	10-6

Type II Database Conversion Overview

Conversion of Sage Intergy 7.00 databases to the type II configuration applies only to upgrades from previous versions of Sage Intergy. If you have installed a new Sage Intergy 7.00 database server in a customer environment, the type II database is already present and you may skip the work actions described in this chapter.

Note that some Sage Intergy 5.50 sites and most Sage Intergy 6.xx sites may already have a Type II database installed. In most cases, a Sage Intergy database server that has been upgraded to version 7.00 should be converted to a Type II database whenever possible.

At a high level, you will complete the following tasks when completing a type II database conversion:

- Stop services and enter maintenance mode.
- Execute database dump and load.
- Start services and test client connectivity.

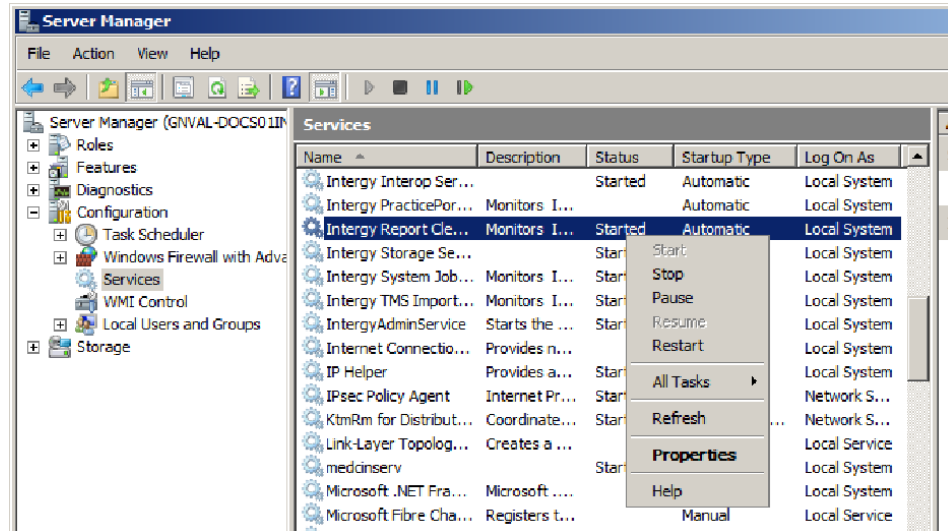
Note that type II database conversion should be executed only on the primary Sage Intergy database server and not on any client workstation or stand alone application server. All instructions assume that you are logged on to the Sage Intergy database server with local administrator rights, and that you have all of the appropriate privileges and credentials to open the Sage Intergy Database Administration tool. As a best practice, complete a full system backup of the Sage Intergy database server before proceeding with the type II database conversion.

Stop Services and Enter Maintenance Mode

The type II database conversion process requires exclusive access to the Sage Intergy database by the Database Administration tool. No other client, service, or application access may occur during the conversion. To ensure that this requirement is fulfilled, you must activate Sage Intergy maintenance mode to disconnect all users, and manually stop all Sage Intergy Windows services.

For detailed information on Sage Intergy maintenance mode, refer to page 13-2 of Appendix C - Sage Intergy Technical Process Reference. Activate Sage Intergy maintenance mode before stopping any Sage Intergy Windows services.

To stop Sage Intergy Windows services, open the Server Manager console on the Sage Intergy database server and access the Services management interface. Select each service that begins with the word 'Intergy' and manually stop each process.



After stopping all Sage Intergy Windows services, manually stop the Remote Monitoring System (RMS) services. Even though Sage Intergy services are not running, RMS services may attempt to make database connections and impede the Type II database conversion process.

For all Sage Intergy environments, shut down other servers that are part of the customer's practice management system. This may include stand alone application servers in N-tier environments. Many customer environments may also have separate imaging or DDS servers, Castle FaxPress devices, or another network node which may attempt to make a Sage Intergy database connection.

Once all Sage Intergy windows services and related processes are shut down, you may proceed with the actual conversion process.

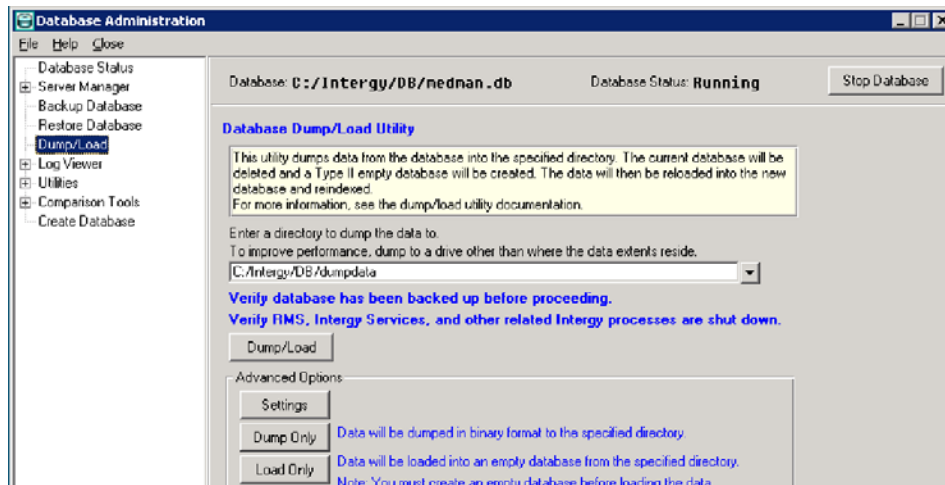
Execute Database Dump and Load

Some technicians may already be familiar with the Progress database dump and load process, which was used in previous versions of Sage Intergy to resolve performance issues at large customer sites where database scattering problems have been diagnosed. This same tool has been adapted to automate the type II database conversion.

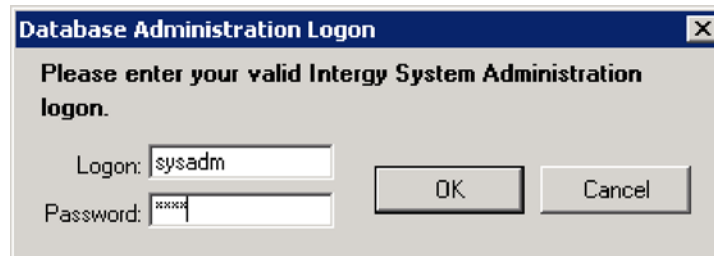
All instructions assume that you are logged on to the Sage Intergy database server with local administrator rights, and that you have all of the appropriate privileges and credentials to open the Sage Intergy Database Administration tool. Follow these numbered steps to execute a successful database dump and load and convert an existing Sage Intergy database server to use the type II database.

1. Before proceeding, verify that Sage Intergy Windows services are stopped and Sage Intergy maintenance mode is activated. Do not proceed with the dump and load process if any client connections or Sage Intergy Windows services are still active.
2. Verify that sufficient disk space is available to perform the dump and load. As a guideline, make sure that the temporary space used for the dump files exceeds the size of the main database extents, which may be found on the D: or E: drive depending on the configuration of the Sage Intergy database server. If necessary, attach extra external storage to accommodate the temporary dump data files.

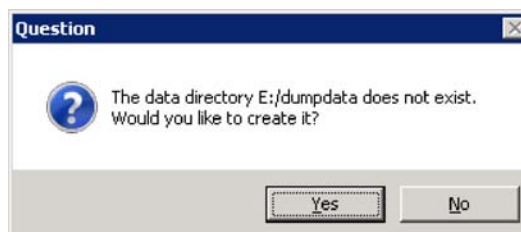
- From the Start Menu or the Sage Intergy program folder, start the Database Administration tool. Click on the Dump/Load menu item in the left pane to display the Database Dump/Load Utility. Note the new text and prompts indicating that the option to convert to a type II database is available..



- Click on the Stop Database button in the upper right corner. A prompt will be displayed, asking you to enter the system administration logon credentials. Enter the 'sysadm' user name and the appropriate password, and click on the OK button to proceed to the next step.

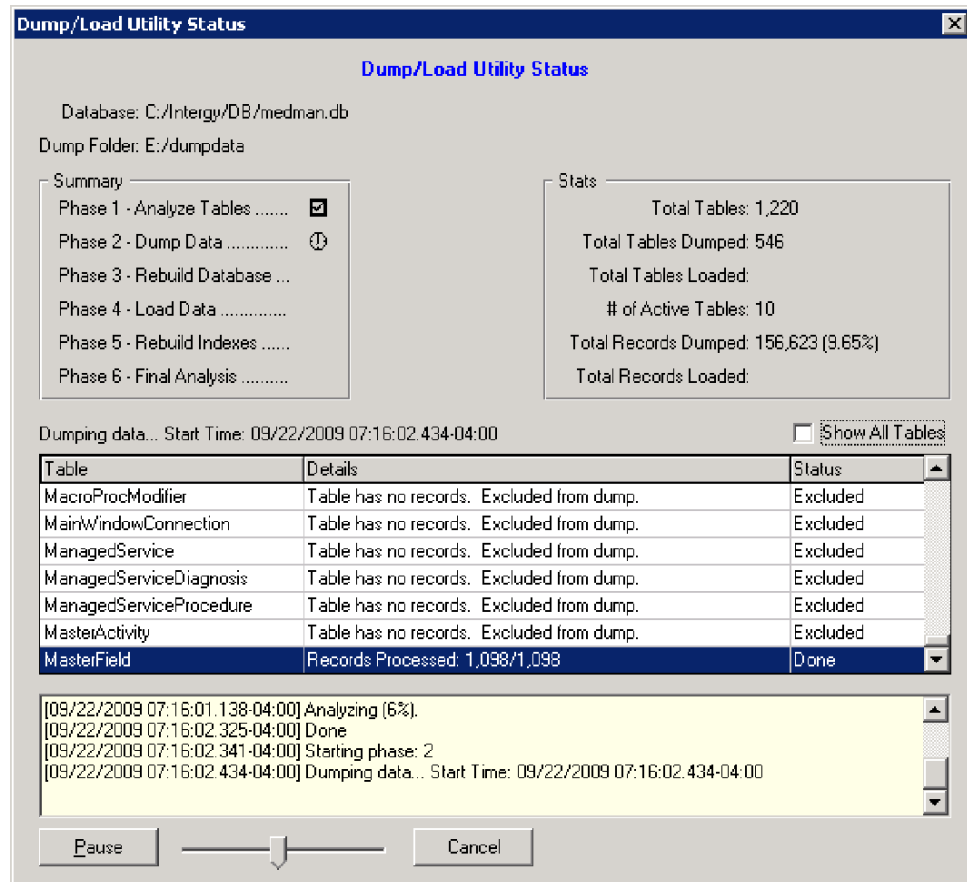


- Observe the Database Status text at the top of the Database Administration tool. After a few moments, the displayed status will be 'Stopping'. Do not proceed to the next step until the displayed database status is 'Stopped'.
- After the database has stopped, select a temporary storage location for the dump files. If necessary, click on the drop-down button on the right side of the dump data text field to use the Windows Explorer to select a directory. Note the use of forward slashes instead of backslashes in the directory name.
- Click on the Dump/Load button to proceed with the Type II conversion. If any prerequisite steps have not been completed successfully, a prompt will be displayed. If necessary, complete any configuration or database status change and click on the Dump/Load button again to proceed.
- In most cases, you will be prompted to create the temporary dump file directory.



A prompt may also be displayed which reminds you to complete a database backup prompt. Click yes on both of these prompts to proceed.

9. The Database Administration Dump/Load Utility Status window is displayed.

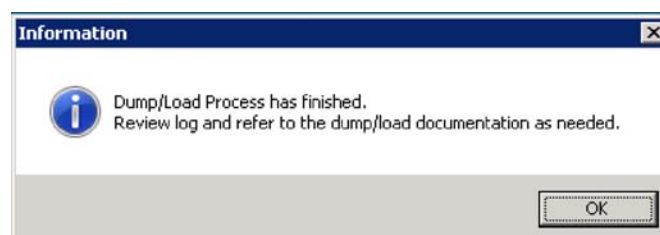


Each step of the type II database conversion procedure is enumerated in this window. Observe the progress of the conversion, and use the time/date stamps and status indicators to estimate the time that will be required for conversion. Some customer sites may require only a few minutes for conversion, whereas large sites with multiple practices and many years of accumulated data may require several hours.

Note that a prompt may be displayed which indicates insufficient disk space is available to complete the database dump. You will be given the opportunity to manually delete or move files and resume the database dump if this prompt is displayed.

If the conversion fails or ends unexpectedly, note the displayed error messages and report the issue to Sage technical support. Revert to the most recent full system backup in the event of a conversion failure.

10. When the dump and load process completes successfully, a prompt is displayed.



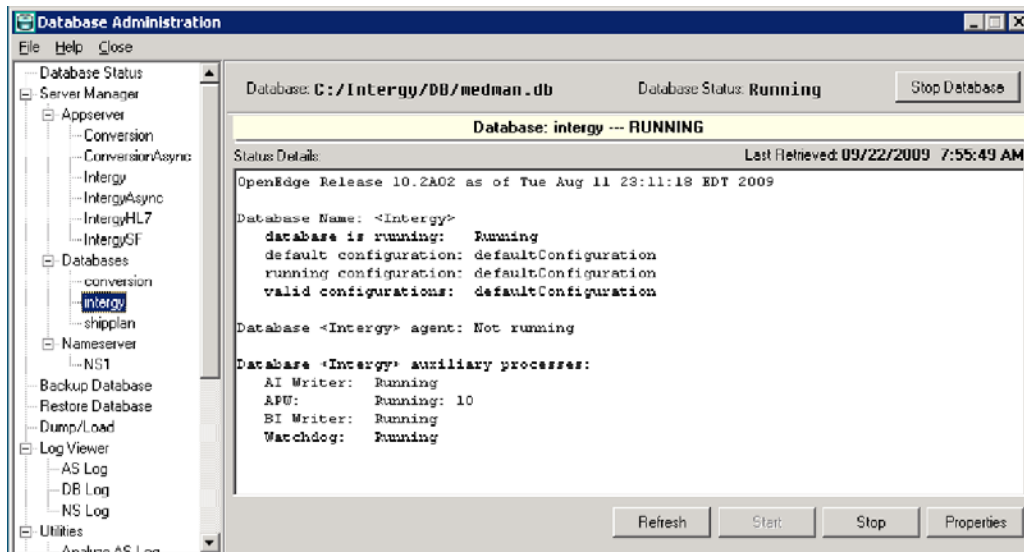
Click on the OK button to close the Database Administration Dump/Load Status Utility window and return to the Database Administration tool.

You have successfully completed the dump and load process. Proceed to the next section to restart services and verify client functionality.

Start Services and Test Client Connectivity

After successful conversion, restart the database and all Sage Intergy Windows services. This task is best be accomplished by rebooting the primary Sage Intergy database server. Also, restart stand alone application servers and other related services on other servers as required for the customer site.

As a best practice, check to make sure that the AI instances are started. Using the Database Administration tool, expand the Server Manager item in the left pane and open the Database menu item. Click on the Sage Intergy item and make sure that the AI Writer auxilliary process is running.



As a best practice, complete another full system backup immediately after a successful type II conversion. Once this backup is complete, test the operation of Sage Intergy clients and related applications.

Next Steps

Note that it is not possible to revert from a type II database back to a type I database. This means that database backups created prior to a type II database conversion are no longer usable for this customer environment. Make sure that subsequent scheduled backups complete successfully, and that a full system backup is available in the event that the customer site must revert to a previous iteration of their database.

Note that many command line tools, scripts, and other field utilities may not be applied to a type II database due to the renaming of extent files and the new database structure. Contact Sage R&D if you require the use of a blank database or other special tools to support a customer site that has converted to a type II database.

Chapter 11: Initial Printer Configuration

All implementations of Sage Intergy will require the use of printers to support the normal business functions of a medical practice. In most cases, Sage Intergy and Sage Intergy EHR client workstations may be configured to use a default Microsoft Windows printer.

Some advanced Sage Intergy print functions must be configured to support the installation of Sage Intergy EHR PDA handheld devices. Also, existing Sage Intergy customers in large computing environments may have implemented Sage Intergy system printers or Sage Intergy print classes. Configuration of Sage Intergy system printers is described at a high level in this chapter.

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Defining and Connecting to a Shared Windows Printer	11-2
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Using System Printers	11-5
Configuring Printer Classes	11-7
Configuration of Remote Print Service	11-8
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Setting the Service Account	11-9
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Initial Printer Configuration for Sage Intergy

In most newly installed Sage Intergy customer sites, technicians will be required only to configure default Windows printers on each client workstation, and in each Remote Desktop profile for sites using Terminal Services. Sage Intergy 7.00 uses the default Microsoft Windows printing API to provide print services for reports and other hardcopy output.

Customer sites that have been upgraded from Sage Intergy 5.50 or earlier, or sites that require the use of Sage Intergy EHR PDA devices may require advanced configuration of Sage Intergy print functions. Use the information in this chapter to configure advanced Sage Intergy printing successfully.

Overview

The following advanced print concepts are described in this chapter:

- **System Printers** - Specific reports may require the default Windows printer not be used. In these cases, a specific shared print location is specified as the default output for a single report or a set of reports.
- **Printer Classes** - A set of printers with common uses may be defined as a printer class. For example, all label printers in a customer's computing environment could be listed as part of a single printer class and displayed as possible print destinations for label print jobs.
- **Remote Print Service (RPS)** - The RPS service is installed only to support Sage Intergy EHR PDA handheld devices, since this type of client does not have a default Windows print destination.

The following pages describe the configuration of Sage Intergy to support these functions. Note carefully where installation of additional services or the use of System Administration and Practice Administration desktops is required.

Configuring System Printers

In some Sage Intergy customer sites, the default printer defined at the workstation may not be a suitable print destination for all reports. For example, regulatory forms or office letterhead may be loaded into a specific printer used only for those types of documents. In these cases, a different system printer must be defined for each report that may require the use of specific hardware.

Note that system printers may be defined either from System Administration or Practice Administration. Note also that a specific Windows shared printer must be defined on each Windows workstation where this report will be executed. Both of these tasks are described on the following pages.

Defining and Connecting to a Shared Windows Printer

Sage Intergy assumes the use of a standard Microsoft Windows printer share for print devices that will be accessed by multiple workstations in a Sage customer computing environment. This printer share will have the following format:

\\<Print Server Name>\<Printer Name>

Note that the print server and the Sage Intergy database server may be different devices, especially in customer sites with existing computing environments already implemented.

When implementing System Printers, Sage technicians may be responsible for some or all of the following work actions:

- **Creating printer shares** - In existing computing environments not implemented by Sage, some or all printers may be locally connected only. In these cases, it may be necessary to implement IP connectivity for print devices and add Microsoft Windows Print Management services to an appropriate server in the customer environment. In some cases, it may also be necessary to create individual shared printers for locally installed printers with no built-in network capability.

Individual printer shares are also the method by which different default paper trays are specified. For example, \\PrintServer\FrontDeskTray1 and \\PrintServer\FrontDeskTray2 would be two shares that use the same printer device for output, but are configured to use different trays. The use of separate printer shares allows Sage Intergy users to select different trays for different report types. Refer to the appropriate vendor documentation for information on how to configure printer drivers to use a different default paper tray.

- **Verifying IP connectivity** - In environments where the Sage Intergy database server is not also the primary domain controller, not all client workstations may be able to access the device configured as the print server. Verify that these devices are on the same local area network and that client workstations can access shares on the print server.
- **Verify printer share permissions** - Sage Intergy does not validate user access to printer shares when running reports or producing other print output. Sage technicians should verify that Windows user accounts have the appropriate level of access to submit print jobs to printer shares configured in the customer environment. This may require the creation of additional local Windows accounts on the print server in environments where a domain controller is not implemented.
- **Add printer objects to local workstations** - After verifying that the appropriate printer shares are created and that client workstations can access them, you must add these shared printers to the list of available print devices on each local workstation. This may be accomplished manually by using the Printers control panel, or you may configure an Active Directory group policy to add printers automatically for Windows users that will make use of Sage Intergy.

All four of these tasks must be completed before system printers may be used for Sage Intergy print jobs. If a system printer does not function as expected after it is configured, verify the correct configuration and accessibility of print sharing.

For more information on configuration of print sharing in a Microsoft Windows environment, refer to the Microsoft Technet documentation at the following URL:

<http://technet.microsoft.com/en-us/library/cc731857.aspx>

System Printer Configuration and Usage

After adding shared printers to the list of printer objects for each client workstation, you may define system printers for reports or other individual Sage Intergy functions.

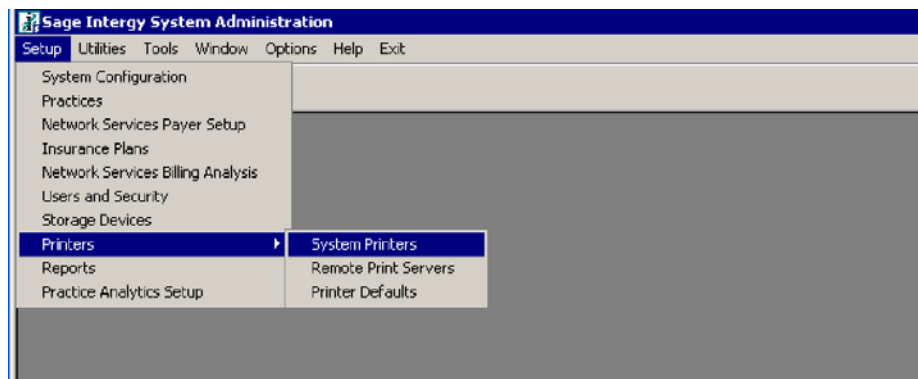
After creating the printer listing in System Administration or in Practice Administration, you may also associate a report with the printer. This will cause the printer to be listed as an available print destination when the report is selected from the Sage Intergy desktop. This is the most common usage of a system printer after it has been defined.

Before proceeding with system printer definition, make sure that all shared printers are defined as listed printer objects on the Sage Intergy database server. As a best practice,

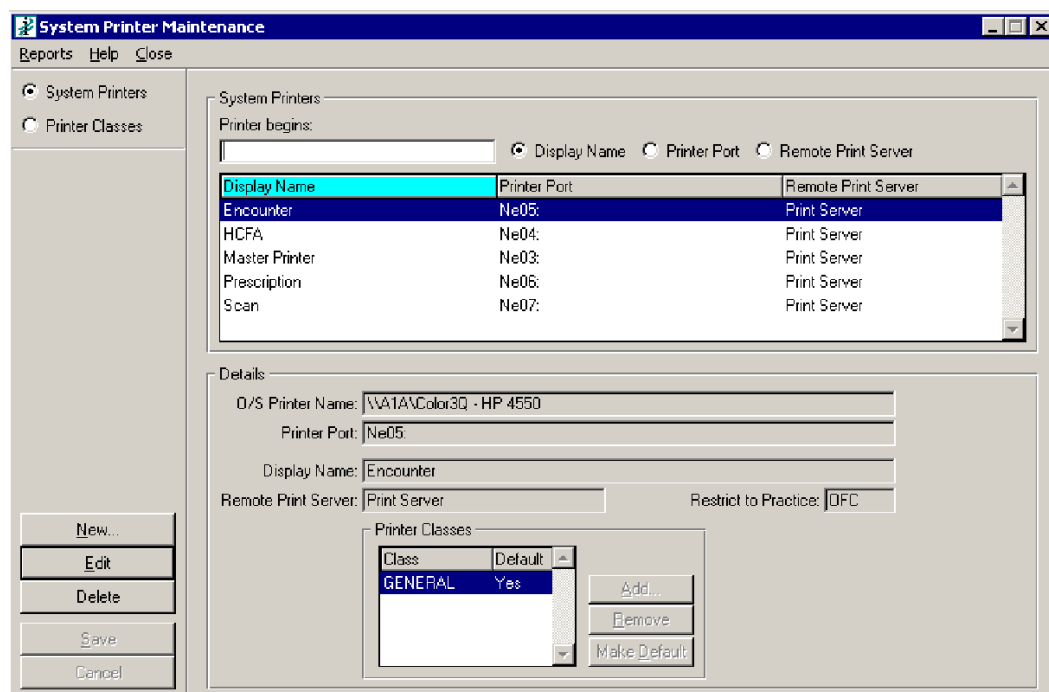
configuration of system printers using the System Administration or Practice Administration desktop interface should be performed directly on the Sage Intergy database server and not on a workstation or on another server.

Defining a System Printer

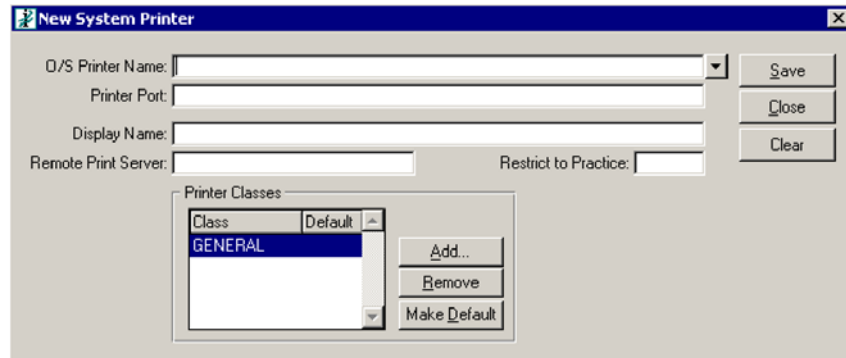
Log on to the Sage Intergy database server. Open the System Administration or Practice Administration desktop and click on the Setup menu. Open the Printers menu and select the System Printers item to begin configuration.



The System Printer maintenance window is displayed.



Click on the New button to configure a new system printer. The New System Printer window is displayed.



The 'New System Printer' dialog box contains the following fields and controls:

- O/S Printer Name:** A text field with a drop-down arrow to its right.
- Printer Port:** A text field.
- Display Name:** A text field.
- Remote Print Server:** A text field.
- Restrict to Practice:** A text field.
- Buttons:** 'Save', 'Close', and 'Clear' are located on the right side.
- Printer Classes:** A section containing:
 - A list box with 'Class' and 'Default' headers, showing 'GENERAL' selected.
 - 'Add...', 'Remove', and 'Make Default' buttons.

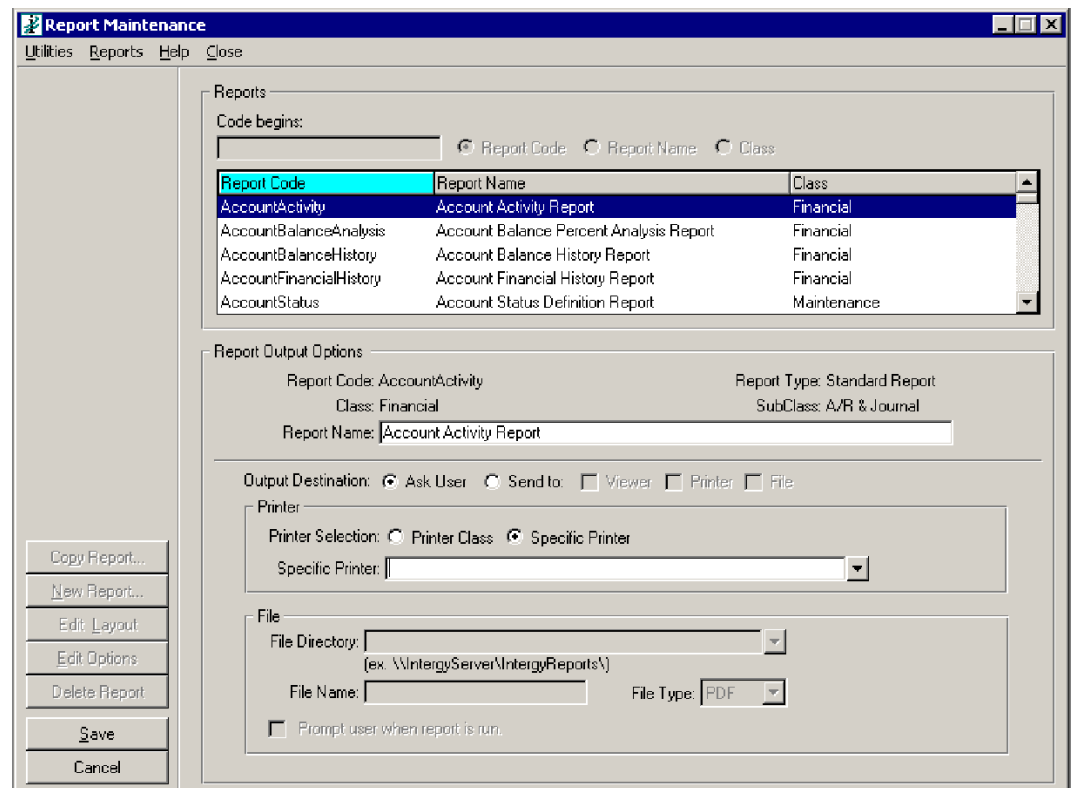
Click on the drop-down button to the right of the O/S Printer Name field and a list of available shared printers is displayed. Select a printer from the list to automatically populate all the other fields in the New System Printer window.

Click on the Save button to save the new system printer, or click on the Clear button to start over. Close the System Printer maintenance window after you have finished.

Using System Printers

Once they are defined in System Administration or Practice Administration, system printers may be specified as the default print destination for many Sage Intergy functions. This section describes the association of a system printer with a report, as an illustration of a common usage for system printer definitions.

Users may configure reports using the Report Maintenance window in System Administration.



The 'Report Maintenance' dialog box includes the following sections and controls:

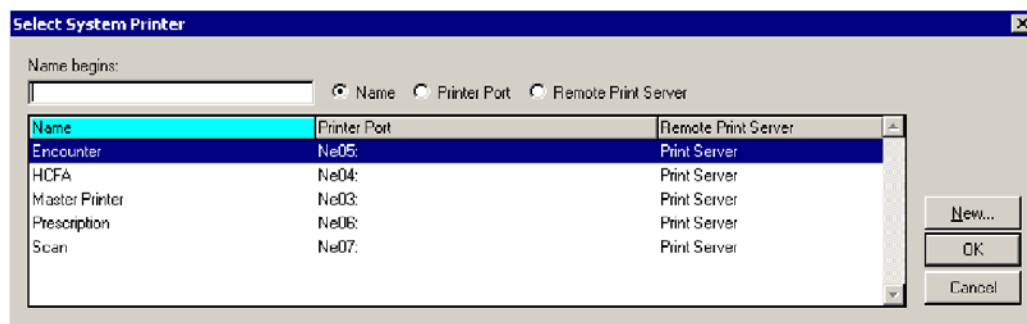
- Reports:**
 - Code begins:** A text field.
 - Radio buttons:** 'Report Code' (selected), 'Report Name', and 'Class'.
 - Table:**

Report Code	Report Name	Class
AccountActivity	Account Activity Report	Financial
AccountBalanceAnalysis	Account Balance Percent Analysis Report	Financial
AccountBalanceHistory	Account Balance History Report	Financial
AccountFinancialHistory	Account Financial History Report	Financial
AccountStatus	Account Status Definition Report	Maintenance
- Report Output Options:**
 - Report Code:** AccountActivity
 - Class:** Financial
 - Report Name:** Account Activity Report
 - Report Type:** Standard Report
 - SubClass:** A/R & Journal
- Output Destination:**
 - Radio buttons:** 'Ask User' (selected), 'Send to'.
 - Checkboxes:** 'Viewer', 'Printer', 'File'.
- Printer:**
 - Radio buttons:** 'Printer Class', 'Specific Printer' (selected).
 - Specific Printer:** A drop-down list.
- File:**
 - File Directory:** A text field with a drop-down arrow.
 - File Name:** A text field.
 - File Type:** A drop-down menu showing 'PDF'.
 - Checkbox:** 'Prompt user when report is run'.

Left Side Buttons: Copy Report..., New Report..., Edit Layout, Edit Options, Delete Report, Save, Cancel.

Note the following configurable options:

- **Output Destination** - For many reports, the default setting Ask User will prompt Sage Intergy desktop users to select a print destination. However, for some reports it may be necessary to configure only one specific output type. Select the Send To option only for reports that require a specific output type.
- **Specific Printer** - For reports that are intended to be sent only to the system printer defined in the previous task, click on the Specific Printer radio button. The click on the drop-down button to the right of the Specific Printer text field to display the System Printer selection window.

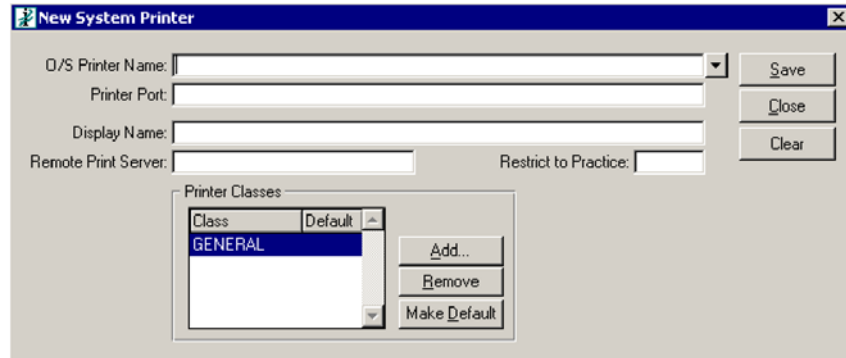


Select the appropriate system printer for this report and click on the OK button to apply the change.

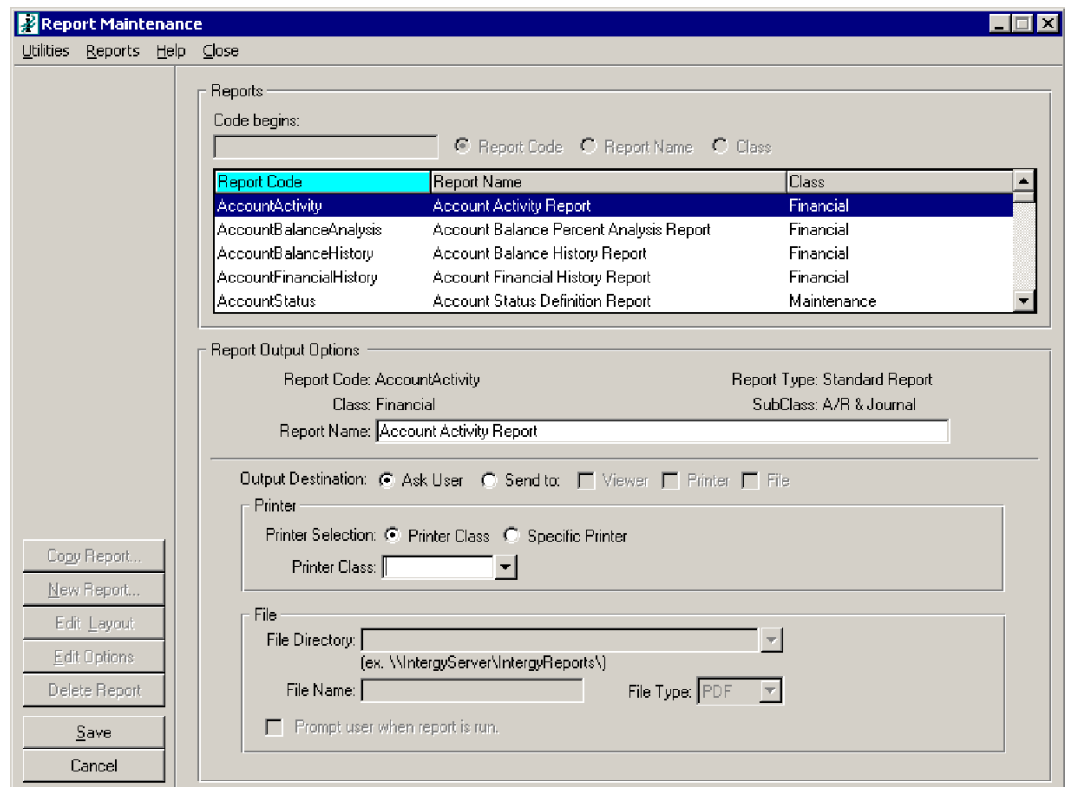
When you have returned to the Report Maintenance window, click on the Save button to save these new settings. Make sure the shared printer is listed as a printer object in the Printer control panel for each client workstation that will be used to run this report.

Configuring Printer Classes

When configuring a system printer, note the Printer Class options that are available for configuration.



System printers may be categorized in one or more printer classes. The use of printer classes allows reports to be configured to print to a set of system printers, instead of just one printer. This type of configuration is used in large computing environments where many printers are implemented.



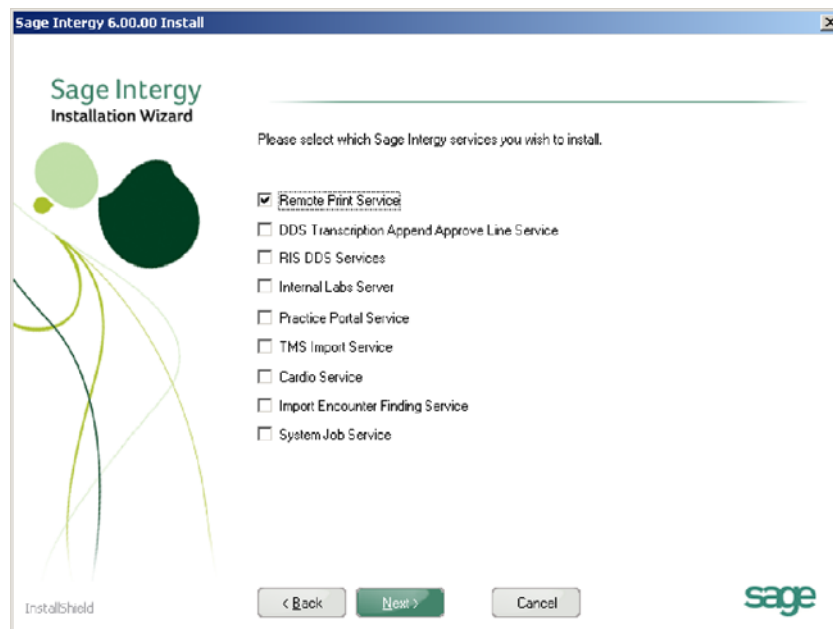
Note the Printer Selection option for this report. By selecting the Printer Class radio button, this report may be configured to use a whole printer class as a potential print destination, instead of only one printer. Configure printer classes and apply print destination configuration as required for each report.

Configuration of Remote Print Service

Remote Print Service (RPS) is installed only for Sage Intergy sites that require the use of Sage Intergy EHR PDA handheld client devices. Since Pocket PC and Windows CE devices do not use the same printing mechanisms as standard Windows workstations, RPS is used to direct prescription printing and other print output functions that apply specifically to the EHR PDA device.

Installing RPS

To install the RPS Service, a checkbox is selected as part of the Sage Intergy application install process as described on page 2-7. This option is displayed on the Sage Intergy services installation window.

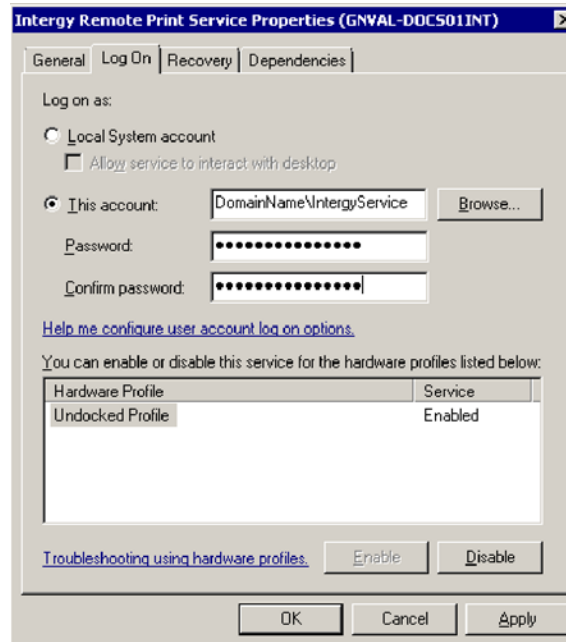


For installation that occurs when upgrading to Sage Intergy 7.00, or when adding the RPS Service to an existing Sage Intergy 7.00 server, you must manually execute the 'IntergyRPSSvc.bat' installation script. In a typical Sage Intergy installation, this installation script is found in the C:\Intergy\Code\Shared\Support\NTServices directory and may be executed from the command line or from Windows Explorer. This script will be executed on the server or workstation where the RPS Service will operate to complete this type of installation.

Typically, the RPS Service will not be installed on a stand alone server or workstation as a separate component. In most cases, the RPS Service is installed directly on the Sage Intergy database server.

Setting the Service Account

By default, all Sage Intergy services are configured to operate as the Local System Account. However, because the RPS service will require access to shared printers on the local network, the service must be configured to operate using a service account instead.

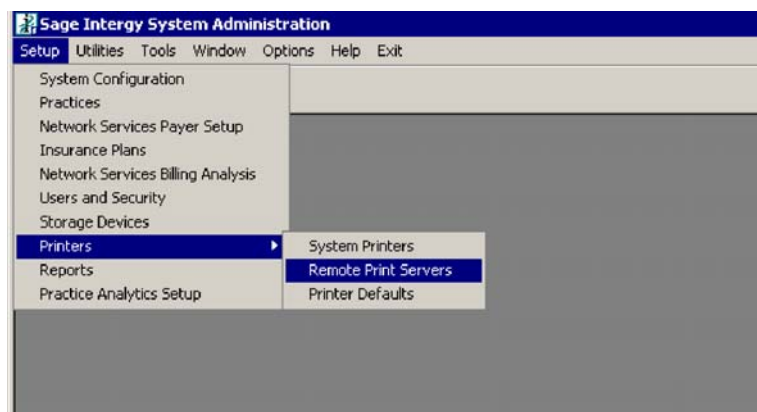


Configure this service to use the Sage Intergy Service Account defined in the Operating System Infrastructure chapter on page 1-13. Also, make sure that this account has access to submit print jobs to all printer shares configured in the customer environment for use with Sage Intergy.

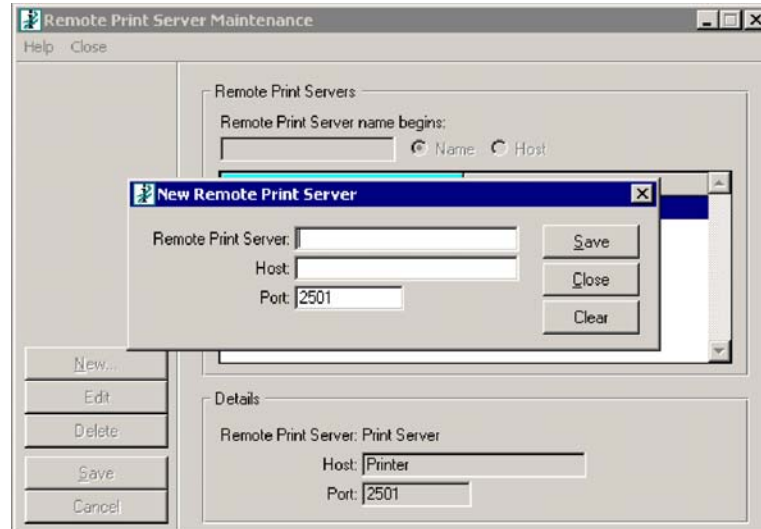
Configuring RPS Parameters

After successful installation of RPS and correct configuration of RPS Windows service account access, the RPS must be defined as a valid print destination for Sage Intergy and Sage Intergy EHR client operations. Use the following procedure to configure the RPS as a print destination.

Open the System Administration desktop. Click on Setup and open the Printers menu, the select the Remote Print Service menu item.



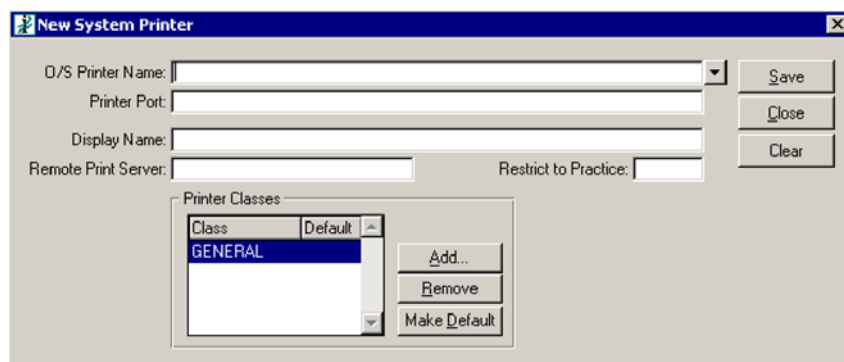
The Remote Print Server Maintenance window is displayed. Click on the New button to define a new RPS print destination.



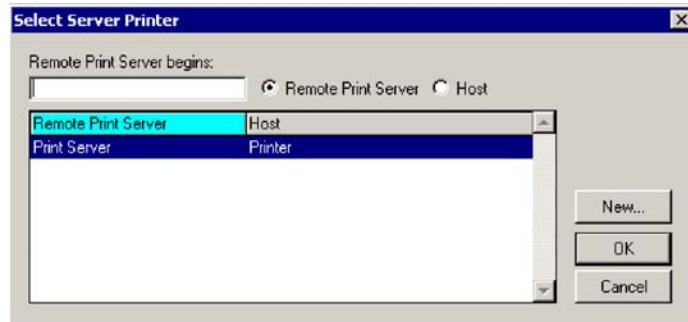
Enter the following values for the new RPS print destination:

- Remote Print Server - An arbitrary text field that defines a unique RPS service. Some environments may require more than one RPS, most often in the case of separate practices with separate printer hardware. Type a short name that is easy to identify as a unique RPS service that applies to a single practice.
- Host - The DNS name of the server where the RPS service will be installed. This field is used from the Sage Intergy EHR PDA client to connect to the server.
- Port - The default value for the TCP port number is 2501. Change this only for customer environments where this TCP port conflicts with another installed service or application.

After configuring the RPS destination, you must associate a new system printer with the RPS. Open the System Printer maintenance window as described previously in this chapter and define a new system printer.



Note the Remote Print Server field. Clicking in this field will display a drop-down button to the right side of the text area. Click on this button to display a list of available RPS print destinations.



Select the RPS print destination you configured previously. Alternatively, you may also create a new RPS print destination from this window. Click on the OK button to associate this RPS server with the system printer you have created.

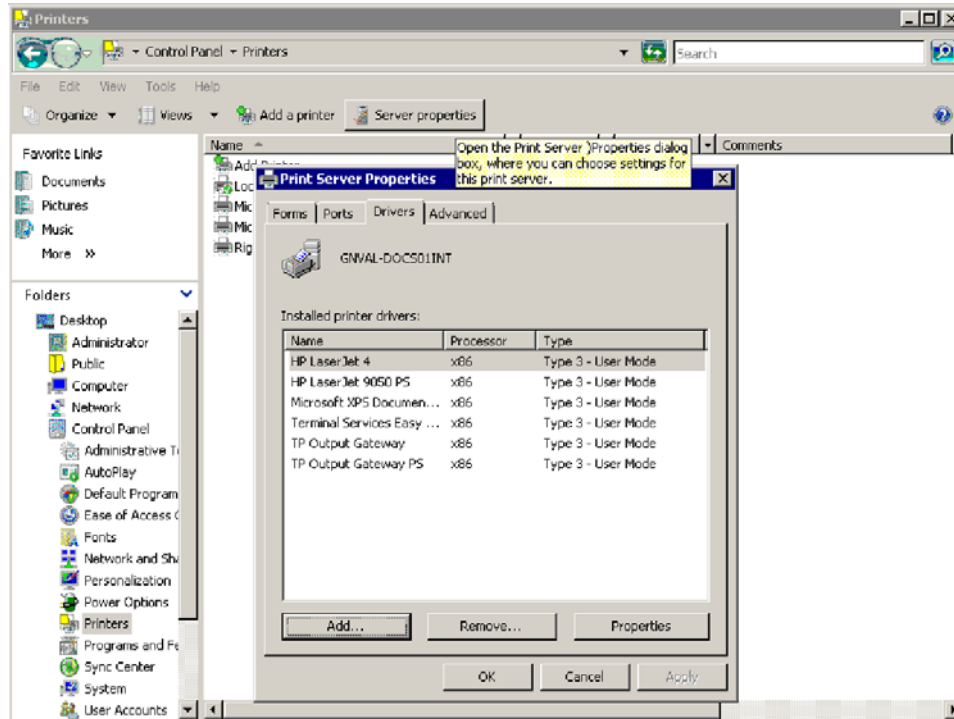
Note that different system printers may be defined which specify the same print destination. For example, a printer loaded with CMS forms may require both a standard system printer, and a system printer associated with an RPS. This is because different client types will be accessing different reports using different system printers. Configure as many system printers and RPS print destinations as required for the customer's printing needs.

Configuration of Printing for Sage Intergy On Demand

Sage Intergy On Demand (IOD) servers are deployed with Windows Server 2008 and use Windows Terminal Services and the Terminal Services Easy Print function. IOD client workstations that establish a successful remote desktop connection will automatically map printer objects listed in the local computer's printer control panel. As long as a default printer is defined on the local workstation, most Sage Intergy print functions will operate normally for Sage Intergy On Demand environments.

To resolve issues where print jobs are not successfully generated, or where customized fonts or formats are not printed correctly, a driver must be loaded on the Sage Intergy On Demand server. Most printer manufacturers provide drivers for many different versions of Microsoft Windows, either on distributed media or via the Internet. In most cases, Sage technicians will be responsible for identifying the correct driver to be installed, and for installing this driver. To add drivers to a Sage Intergy On Demand server, log on remotely using the appropriate

administrative credentials and use the Printer Server Properties component of the Printers control panel.



Do not use vendor installation wizards to install printer drivers for Sage Intergy On Demand servers. These applications may also install multifunction application components that are not supported for use with IOD servers.

For detailed information on configuration of printers for Windows Server 2008, refer to the Microsoft documentation at the following URL:

[http://technet.microsoft.com/en-us/library/cc753109\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc753109(WS.10).aspx)

Next Steps

New installations of Sage Intergy are usually followed by user training, which covers printing and report generation. Before training occurs, Sage technicians should validate the correct operation of printing by spot checking a representative sample of client workstations.

Appendix A: Backup Application Installation and Configuration

Database server computing environments must include a robust backup solution. For Sage Intergy customer sites that do not have their own purchased product, Sage offers Symantec Backup Exec 12.5 and Symantec System Recovery as its preferred backup solutions for use with Sage Intergy. This appendix describes installation of both programs

This section provides a brief overview of the requirements for installing Symantec Backup Exec or Symantec System Recovery in a typical Sage Intergy environment.

For additional information on installation and configuration of the Symantec System Recovery product, refer to the vendor documentation at the following URL:

<http://seer.entsupport.symantec.com/docs/306981.htm>

For more detailed information about installation of the Symantec Backup Exec product, refer to the following URL link:

<http://seer.entsupport.symantec.com/docs/308510.htm>

Typical Installation Settings	12-2
Create Administrative Account	12-4
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Typical Installation Settings

The following table lists typical installation settings used for Backup Exec in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

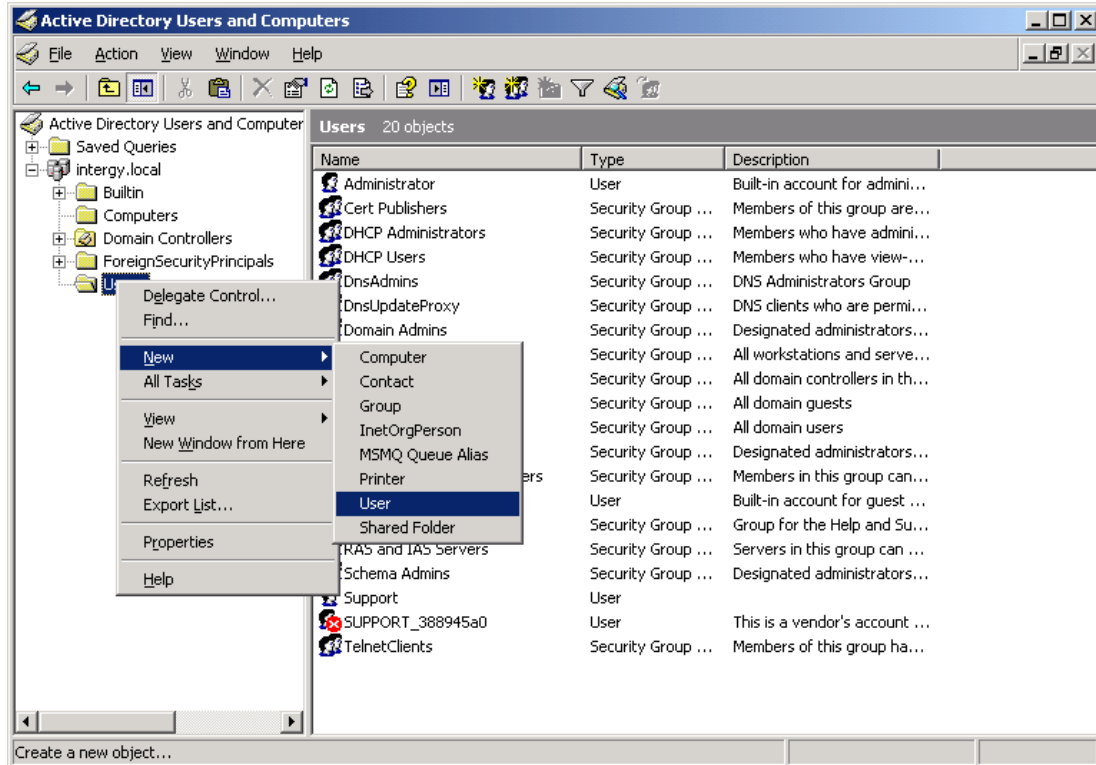
Application Component	Configuration Item	Value or Setting
Administrative Account	First Name and Full Name	backup
	User Logon Name	backup
	password	!pukcaB1
	Password Never Expires Option	Checkbox selected
	Group Membership	Domain Users, Domain Admins
Backup Exec Installation Options	Service Account Username	backup
	Service Account Password	!backup!
	Domain	Typically 'Intergy', use domain of which Intergy server is a member if the Intergy server is not a domain controller
	Local SQL Express database destination folder	C:\Program Files\Microsoft SQL Server\
	Use Symantec device drivers for all tape drives	Checkbox selected
Backup Exec Backup Job Definitions	Backup Selections	C:, D:, E: drives included CD-ROM and DVD-ROM excluded X:\Intergy\DB\medman.st included X:\Intergy\DB excluded X:\Intergy\Temp excluded
	Backup Job Name	Full System Backup
	Backup Overwrite Method	Overwrite media
	Backup Options	Full - Backup Files - Reset Archive Bit
	Completing the Backup Wizard	No, schedule the job to run later
Backup Exec Job Scheduling	Time Window	Start no earlier than 11:00 pm Start no later than 11:01 pm
	Recurring Weekdays	Monday through Friday
System Recovery Backup Wizard	Menu Selection	Define Backup Wizard
	Service Account Password	!pukcaB1
	Recovery Point Type	Independent Recovery Point

Application Component	Configuration Item	Value or Setting
System Recovery Backup Job Definitions	Drive Selection	C:, D:, E:
	Backup Destinations	Use literal backup media (or G: for mounted RDX Quickstore drive)
	Recovery Point Options	Backup job name - Sage Intergy Nightly Backup Compression - High Verify recovery point after creation checkbox selected
	Backup Time	Weekly All days selected 10:00 pm
	Manage Backup Destination Settings	Automatically optimize storage
Backup Batch Files	New Directories	C:\IntergyBackup\SIS C:\Intergy\Solion

Directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

Create Administrative Account

Before installing Symantec System Recovery or Symantec Backup Exec, an administrative account must be created in Sage Intergy, or in the domain where the primary Sage Intergy database server is located. If no Windows domain is installed, create a new user in the local user group of the server. Using Active Directory Users and Computers, create a new user object in the Users organizational unit.



This user should have the following attributes:

- First Name - backup
- Full Name - backup
- User logon name - backup
- Password - !pukcaB1
- Password Never Expires should be checked
- Member of 'Domain Admins' group

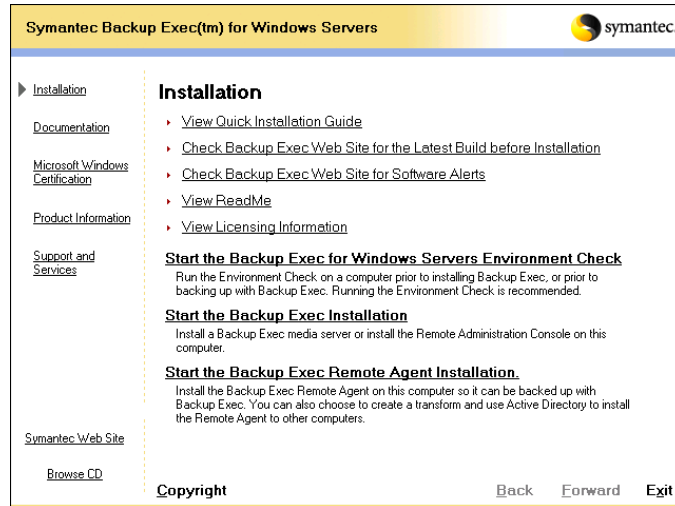
Note the use of a new password to comply with password complexity requirements. If installing Symantec System Recovery in an established computing environment, follow the customer's standards for naming and passwords, or use an existing domain administrator account as the backup administrator.

Install Symantec Backup Exec From Media

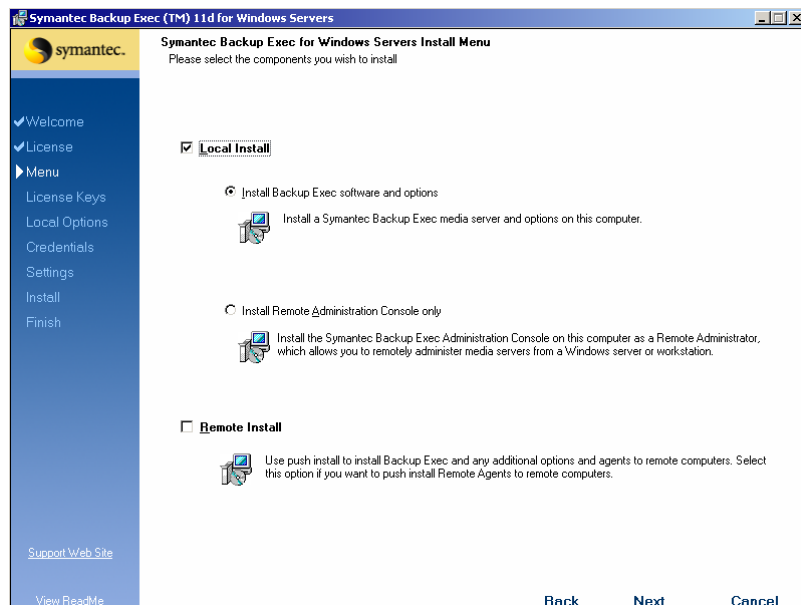
These instructions apply to the installation of Symantec Backup Exec. For instructions describing the installation of Symantec System Recovery, proceed to page 12-16.

When installing Backup Exec from CD media, the CD browser window will be displayed when the disk is inserted.

1. To begin installation, select the Start Installation menu option.



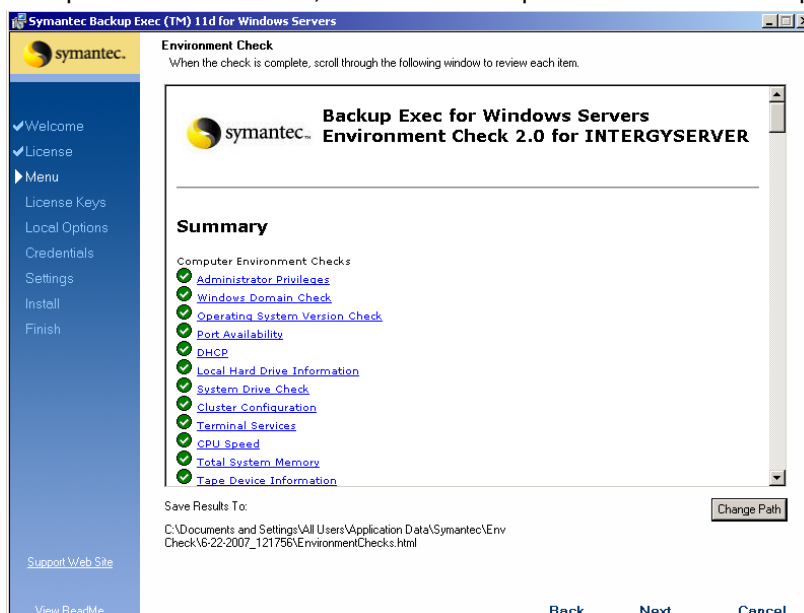
2. The Backup Exec installation wizard is displayed. Click on the Next option to proceed, and accept the license agreement to display the installation options window. Accept the default option of local installation of the normal Backup Exec software options and click on Next to continue.



Check Environment for Prerequisites and Warnings

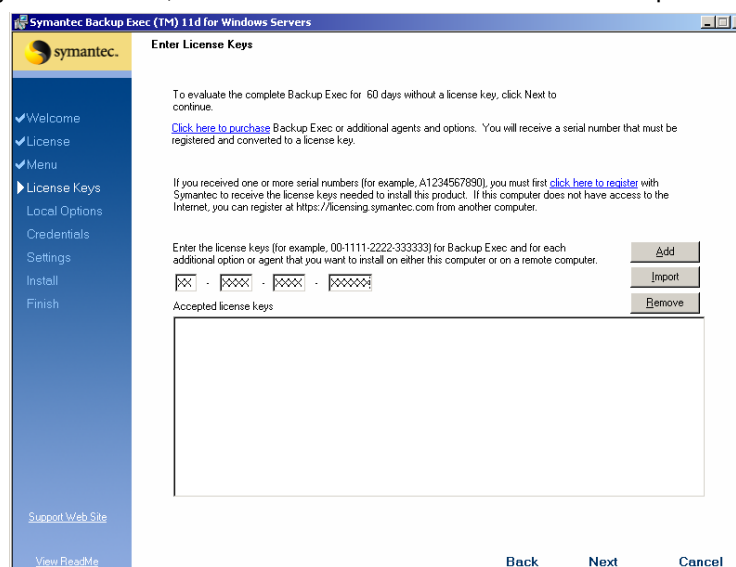
3. Backup Exec will perform a check of locally installed services and the permissions of the account in use. The Environment Check window will then be displayed. Read this list carefully for any problems or errors that are reported that may interfere with the

successfully installation of Backup Exec. If necessary, cancel the installation to address any reported problems. Otherwise, click on Next to proceed to the next step.



Enter Purchased License Key

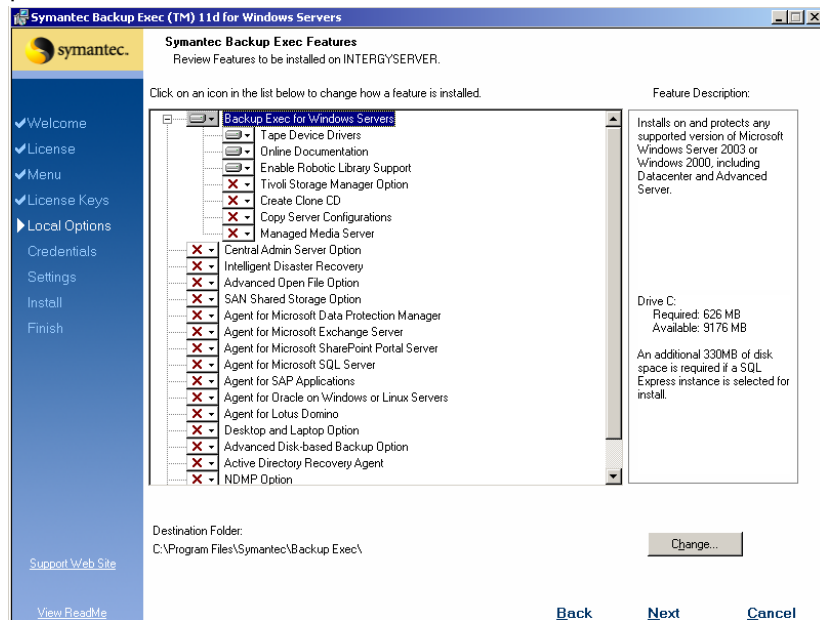
- The license key entry window is displayed. Note that one installation of Backup Exec may require several different license keys for successful completion, depending on the installed hardware and the components purchased by the customer. For each purchased key, enter the numbers in the fields provided and click on the Add button. When all license keys are entered, click on Next to continue to the next step.



Select Purchased Options

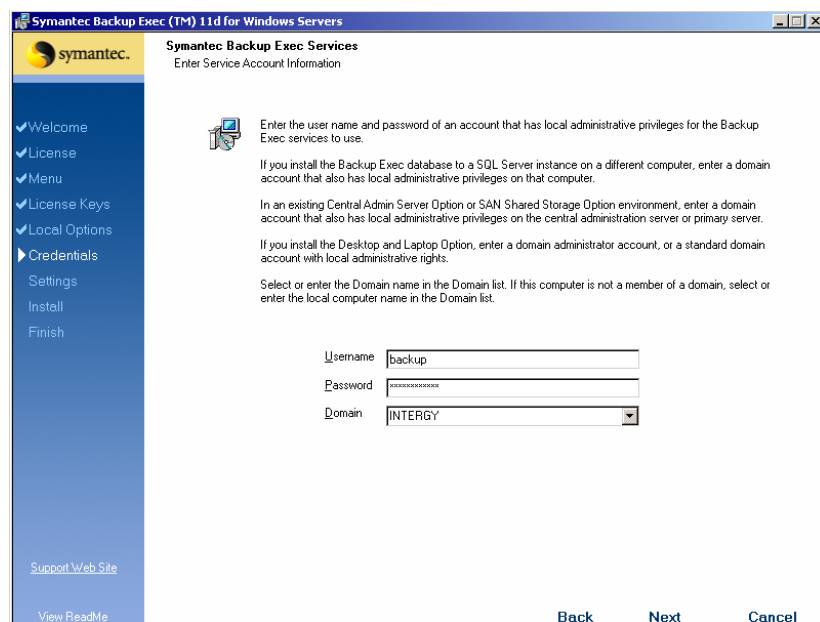
- The installed features window is displayed. If necessary, select purchased options to install components for third-party products on the Intergy Server. If no third party

products are installed, accept the default options and click on Next to continue to the next step.

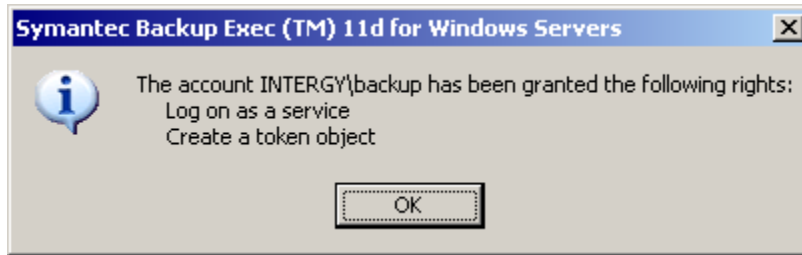


Enter Service Account Information

- The Services Account Information window is displayed. If you created the backup administration account using default settings, type 'backup' for the user name and '!backup!' for the password, and make sure the selected domain is the Intergy domain. If you used different settings or are using an account provided by the customer's I/T organization, enter that information instead. Click on Next to continue to the next step.

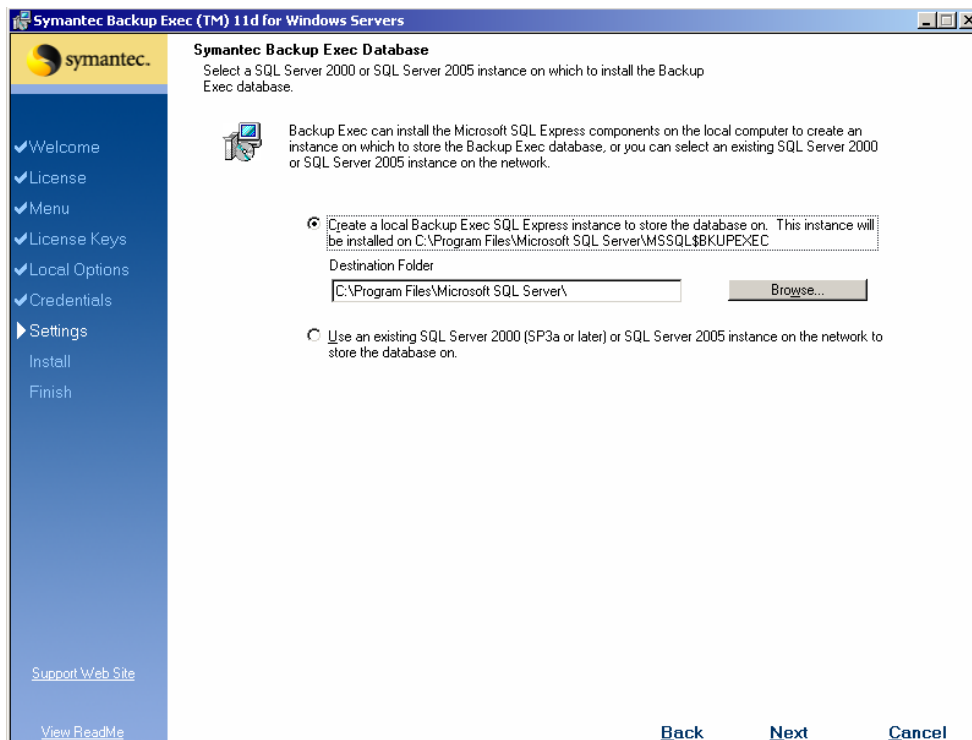


7. A pop-up window will be displayed indicating that the backup account has been granted new rights on the local server. Click on OK to accept these automatic changes and proceed to the next step.



Enter Database Parameters

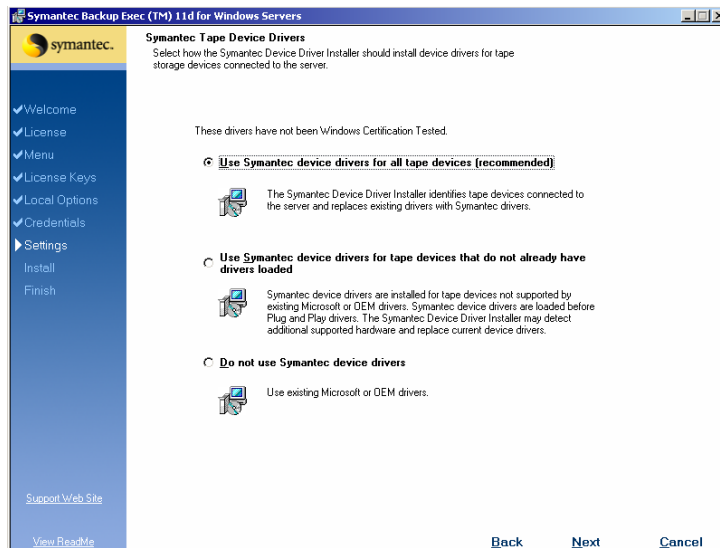
8. The Database Configuration window is displayed. Select the option called 'Create a local Backup Exec MSDE' or 'Create a local Backup Exec SQL Express Instance' to create a new local database. It is a best practice for the Intergy product to store the backup information locally rather than in a remotely connected SQL database. Click on the Next button to proceed to the next step.



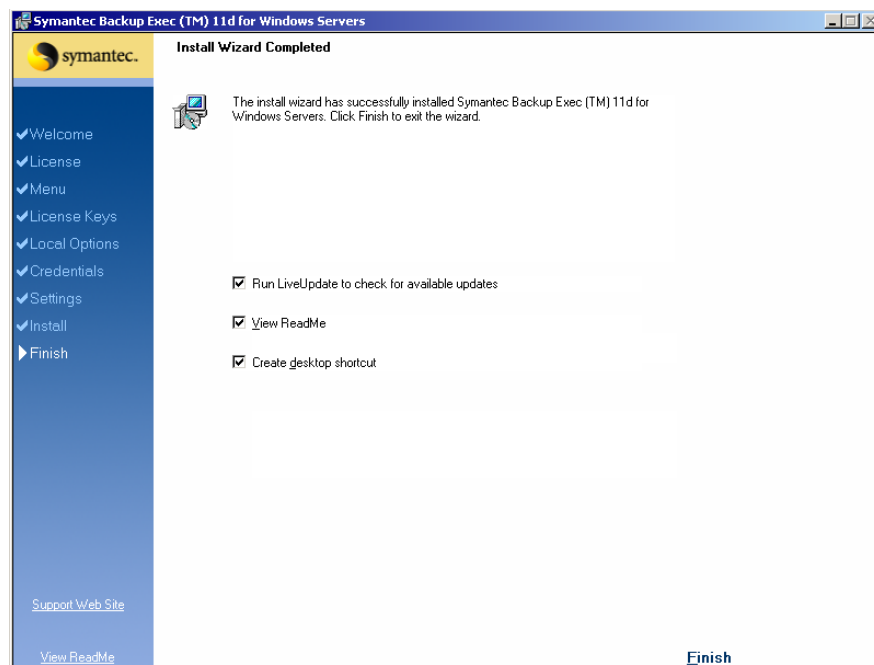
Select Default Tape Drivers

9. The Tape Drivers Installation window is displayed. If the customer has a VXA or LTO tape drive installed in the server, select the option that reads 'Use Symantec device drivers' to

install the vendor driver files. For most installations you will not use drivers provided by the hardware manufacturer. Click on the Next button to proceed to the next step.



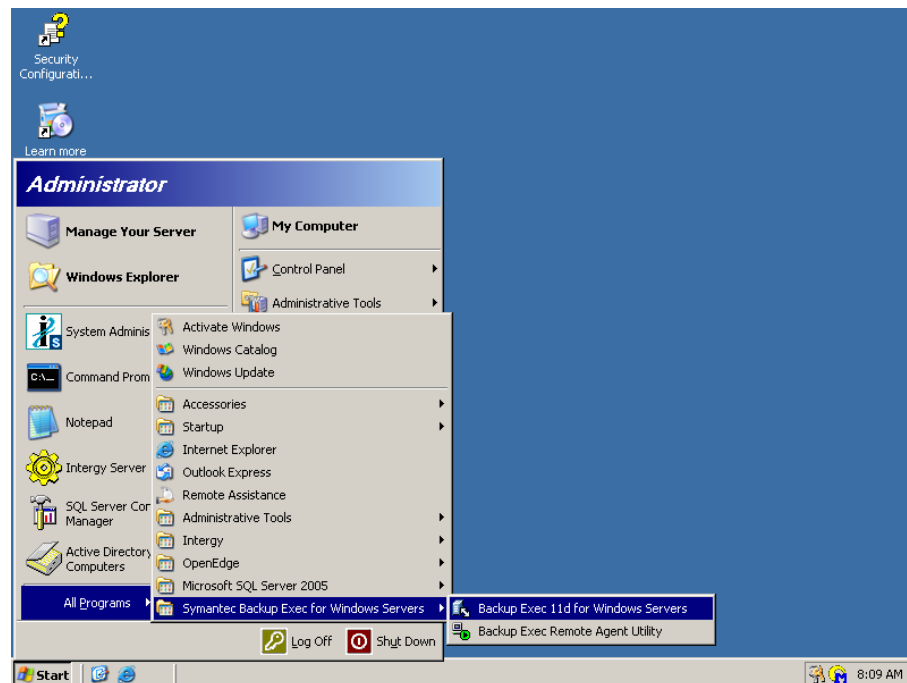
10. An overview window is displayed, describing all the selected installation components. Review this list carefully and click on Install to proceed with the installation. Several windows with progress bars will also be displayed detailing each step of the installation. When complete, a notification window will be displayed. Clear all the checkboxes so that the readme is not displayed, online registration does not occur and updates are not loaded, and click on Finish.



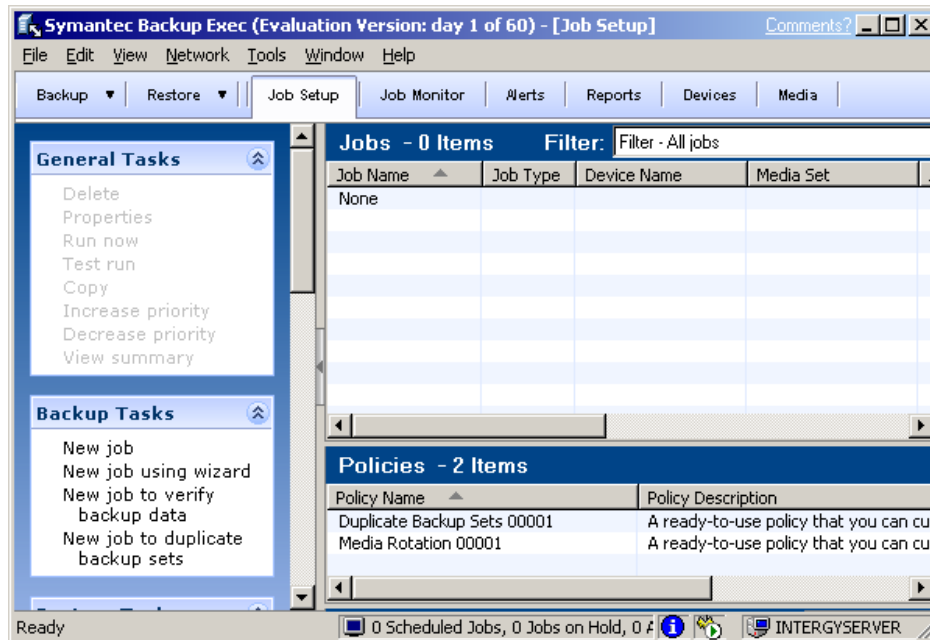
Configuration of Backup Jobs

After successful installation, open the Backup Exec Administration console and configure the scheduled backup jobs.

1. To configure Backup Exec, start the Backup Exec Administration console from the Symantec Backup Exec program group in the Start menu.

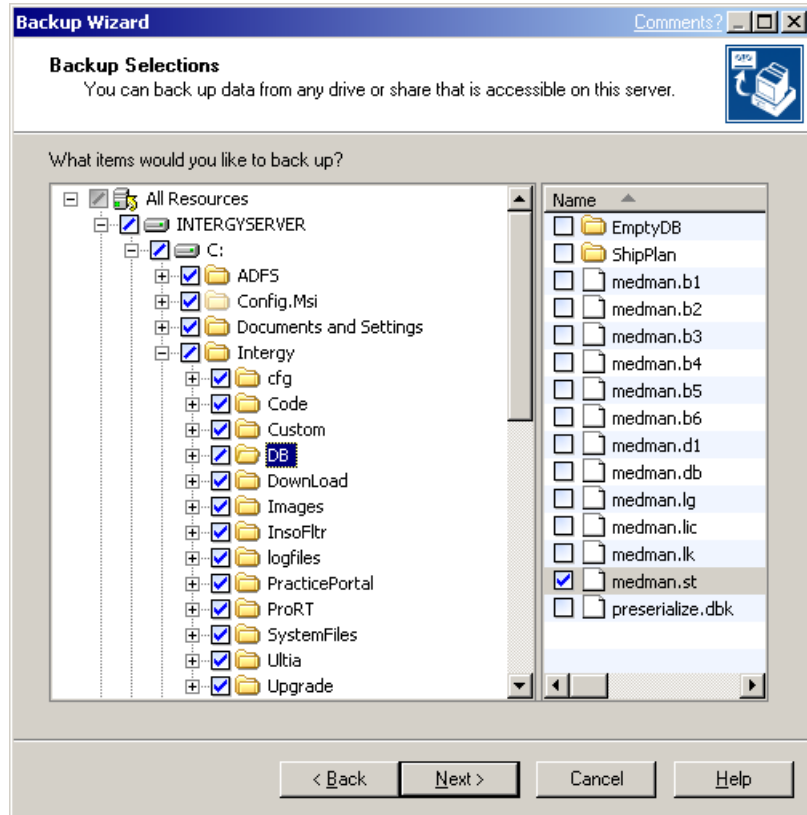


2. The Backup Exec Administration console is displayed. If a configuration wizard starts, click on the Cancel button to return to the Administration console and set options manually.



Create a New Backup Job

- Clicking on the 'New job using wizard' item in the Backup Tasks window will display the Backup Wizard. The first window displayed is the Backup Selections window.



To configure these backup selections, make sure that all physical hard drives are selected. On a server with a default configuration, this means that the C, D, and E drives are selected and the CD-ROM or DVD-ROM drive is not selected. Also make sure that the System State item is selected for backup. Note also that the \Intergy\DB directory on the root of each hard drive is not backed up, except for the manually selected 'medman.st' file. This is because Backup Exec is being used to write the internal Progress backup to tape and not the active Progress database files, which may be corrupted if accessed in this manner.

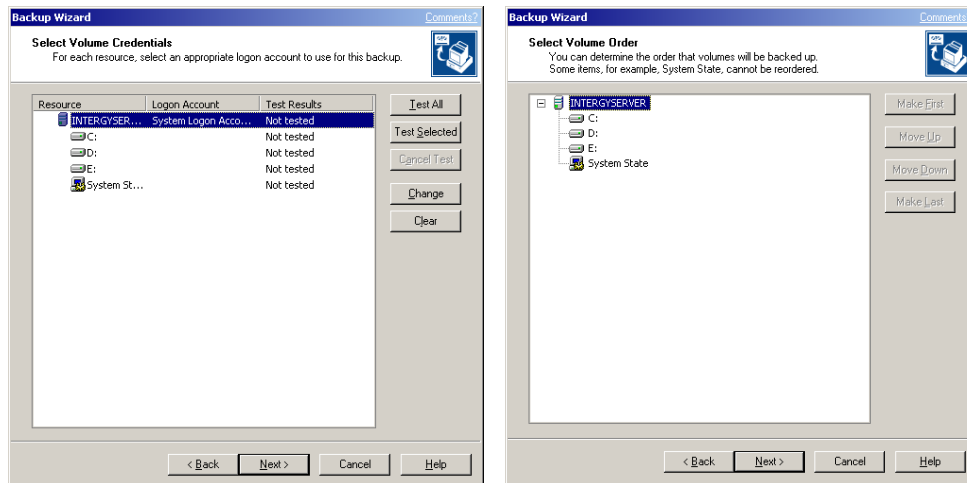
Also exclude the Intergy temporary directory from the backup selection. This may be C:\Intergy\Temp or D:\Intergy\Temp depending on the requirements of the customer environment.

Selecting the System State and specific drives for backup using this configuration will result in a backup image that includes all of the the following system components:

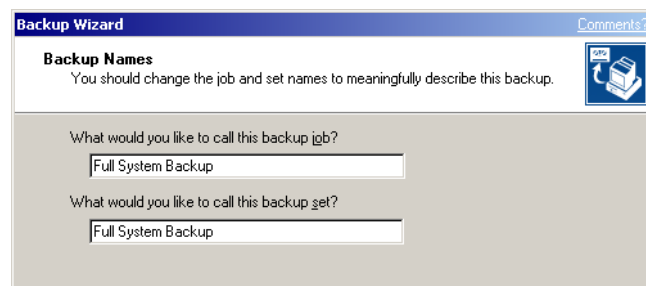
- Sage Intergy application data.
- Sage Intergy logon security credentials and access privileges as stored in the database backup file.
- Sage Intergy database transactions up to the point of the most recent scheduled backup job.
- All logs associated with Sage Intergy operation, including application logs and security audit logs.

Configure backup selections carefully before proceeding to the next step.

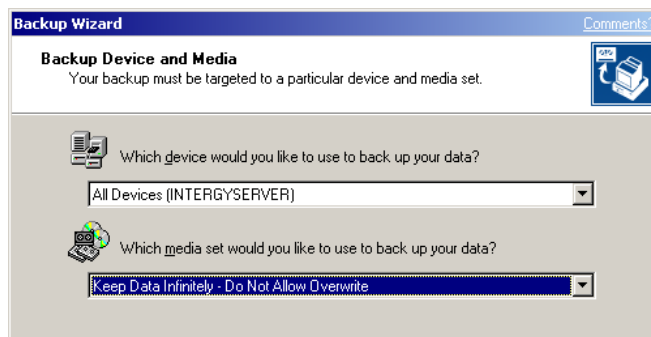
4. The Volume Credentials and Volume Order windows are displayed. Accept default settings for both these windows and click on Next for each.



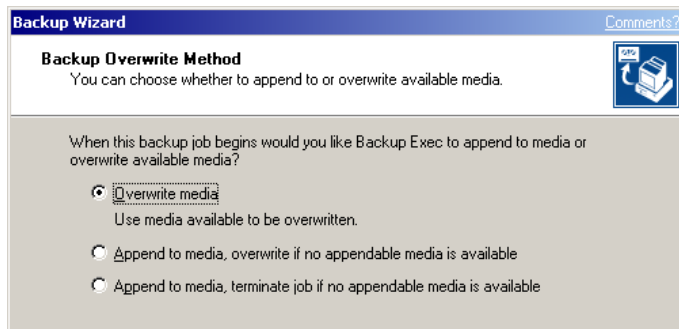
5. The Backup Names window is displayed. Enter 'Full System Backup' in both fields and click on Next to proceed to the next step.



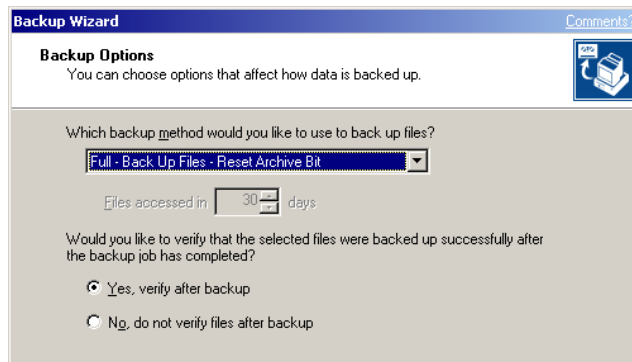
6. The Backup Device selection window is displayed. Select the tape drive and the default media set and click on Next to proceed to the next step.



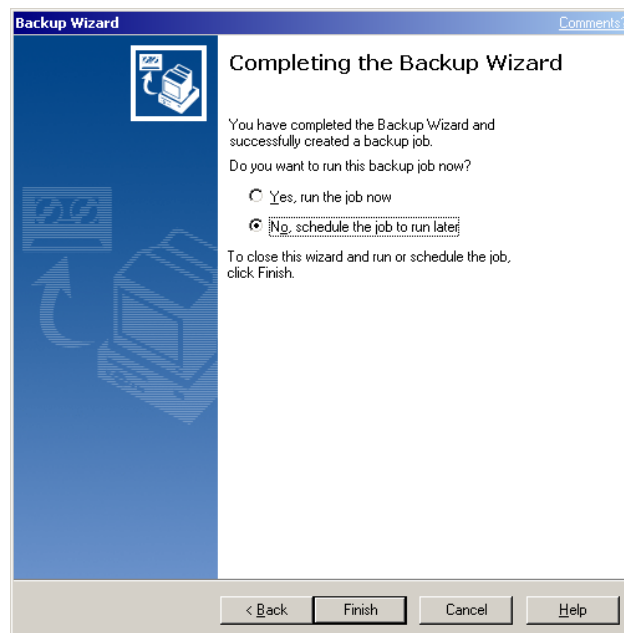
7. The Overwrite Method window is displayed. Change the selected radio button so that the Overwrite Media option is selected, and click on Next to continue.



8. The Backup Options window is displayed. Select 'Full - Backup Files - Reset Archive Bit' for the backup type and click in the 'Yes, Verify after backup' radio button to select these options. Click on Next to continue.



9. The Completion Notification window is displayed. Select 'No, schedule the job' to process the job as a scheduled item instead of running it now, and click on the Finish button to proceed to the next step.



Backup Job Scheduling

The Backup Exec job scheduler will start automatically after creating the new full backup job.

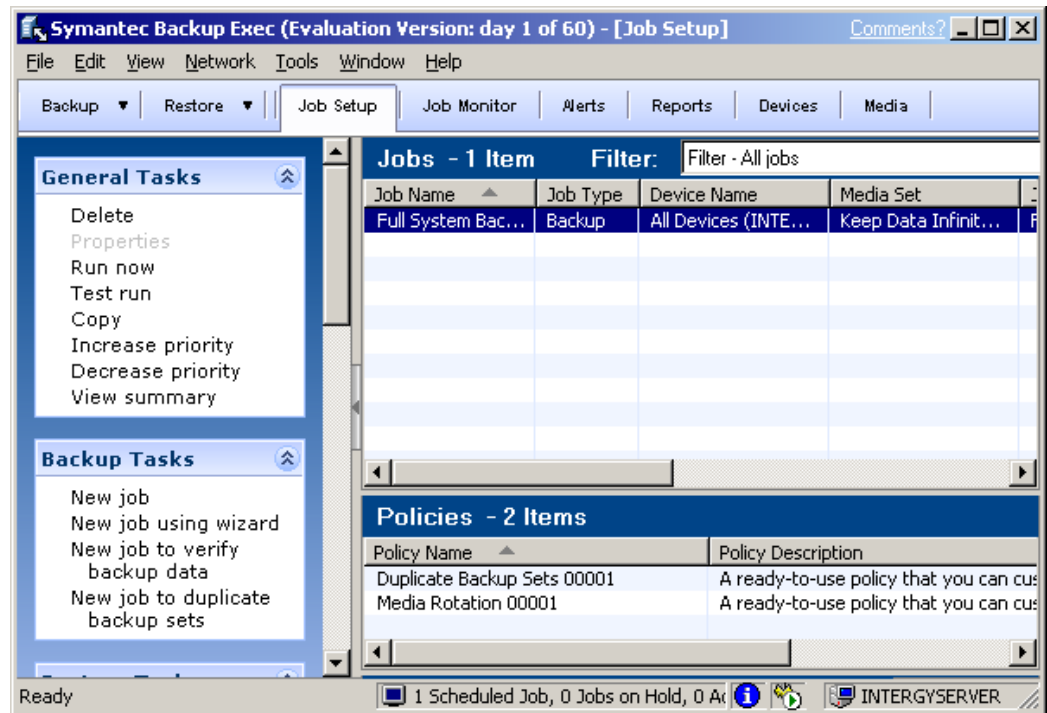
1. The Job Scheduler is displayed.

Click on the Edit Schedule Details button to set the following backup schedule criteria:

- Time Window - start no earlier than: 11:00 pm
- Time Window - start no later than: 11:01 pm
- Recurring Week Days - Days that the customer is in operation (usually Monday through Friday)

2. When complete, click on the OK button to close the advanced scheduling window and click on the Submit button to close the job scheduler.

3. The Backup Exec Administration window is displayed again. Note that in the Job Setup tab, the backup job which you just created is now listed as a scheduled item.



Copy Backup Batch Files

4. From the File Storage Area, download the Standard Intergy Backup Batch File archive and extract the files to a temporary location. You will have to create new directories C:\IntergyBackup\SIS and C:\Intergy\Solion to store these files on the Intergy Server. These scripts are subject to updates and changes, so follow the directions in the Readme file that is included in the archive.

Test Backup Job

5. Before normal usage of Intergy occurs, you should test the backup job. Right-click on the scheduled job in the Backup Exec Administration window on the Job Setup tab. Select the 'Run Now' menu item to test the backup job, which may take several minutes to complete.

Install Symantec System Recovery

These instructions apply to the installation of Symantec Symantec Recovery. For instructions describing the installation of Symantec Backup Exec, proceed to page 12-5.

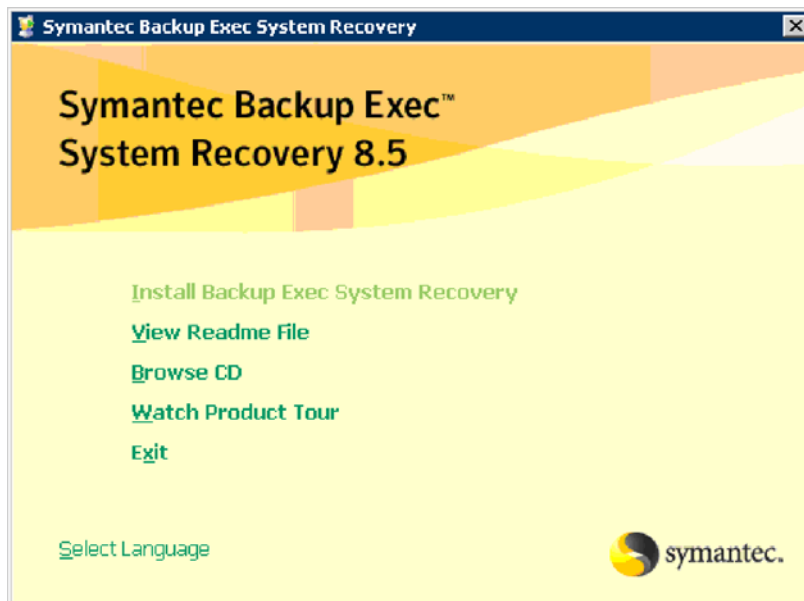
Before installation, verify that the backup media device is properly installed. The RDX QuickStore removable drive is the default backup device configured on most new Sage Intergy 7.00 servers. Refer to the Sage Intergy 7.00 System Requirements for additional information on supported backup media devices.

For additional information on installation and configuration of the Symantec System Recovery product, refer to the vendor documentation at the following URL:

<http://seer.entsupport.symantec.com/docs/306981.htm>

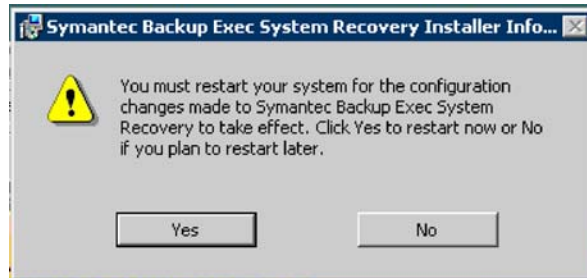
Install Application

1. Log on to the Sage Intergy Appliance as the administrator and insert the Symantec System Recovery installation CD. If the Autorun feature is not enabled, double-click on the setup.exe item in the root of the CD drive from Windows Explorer. The System Recovery installation menu is displayed.

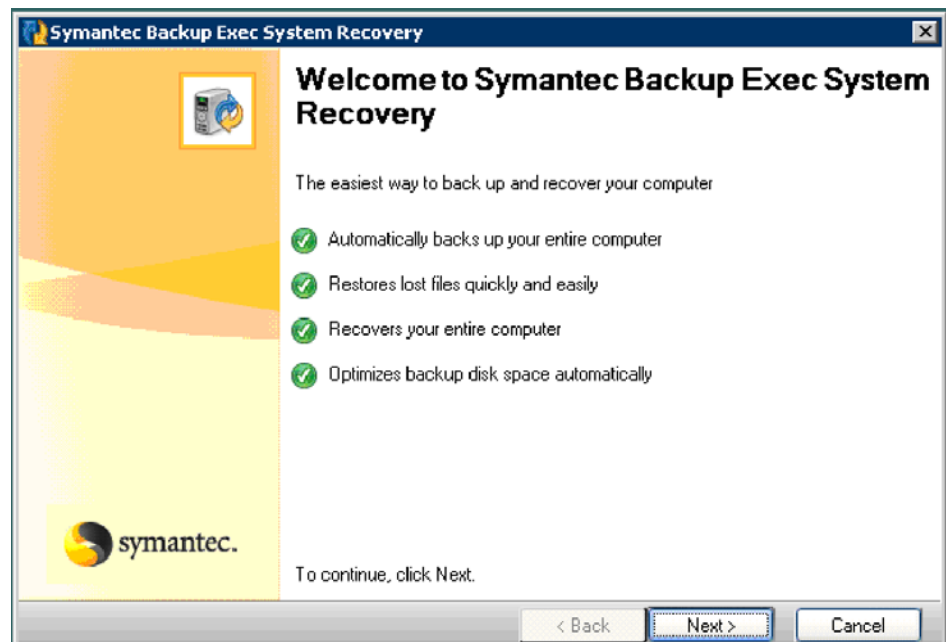


Click on the Install Backup Exec System Recovery menu item to proceed to the next step. If the license agreement window is displayed, click on the checkbox to accept the license agreement and click on the Install Now button to proceed.

2. Installation progress windows will be displayed, and at the end of the installation process an Installshield prompt window is displayed. Click on the Finish button to display a reboot prompt.

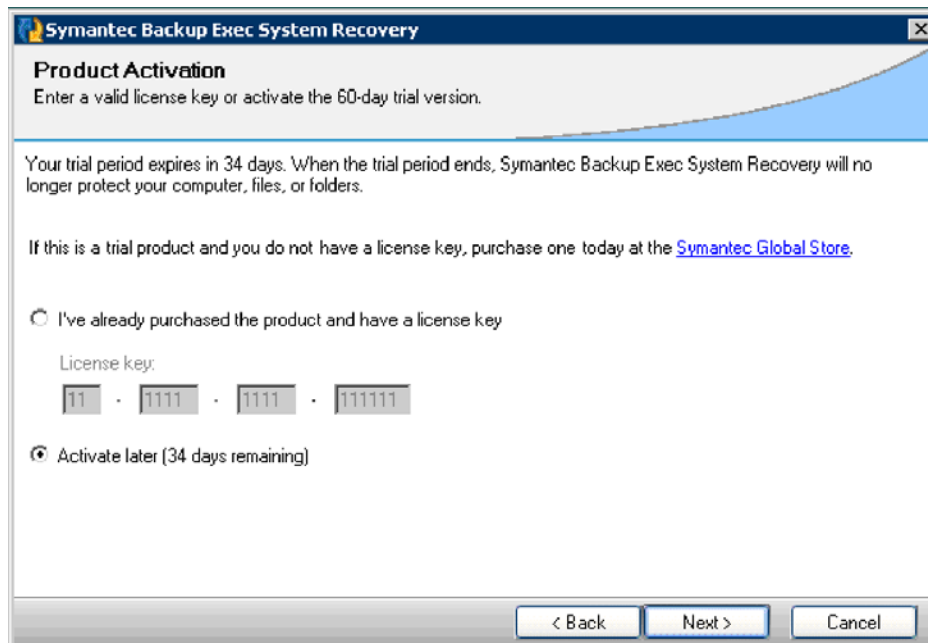


3. Click on the Yes button to proceed with the reboot. After the server has finished rebooting, log on as the administrator. The Symantec System Recovery welcome screen will be displayed automatically upon login.

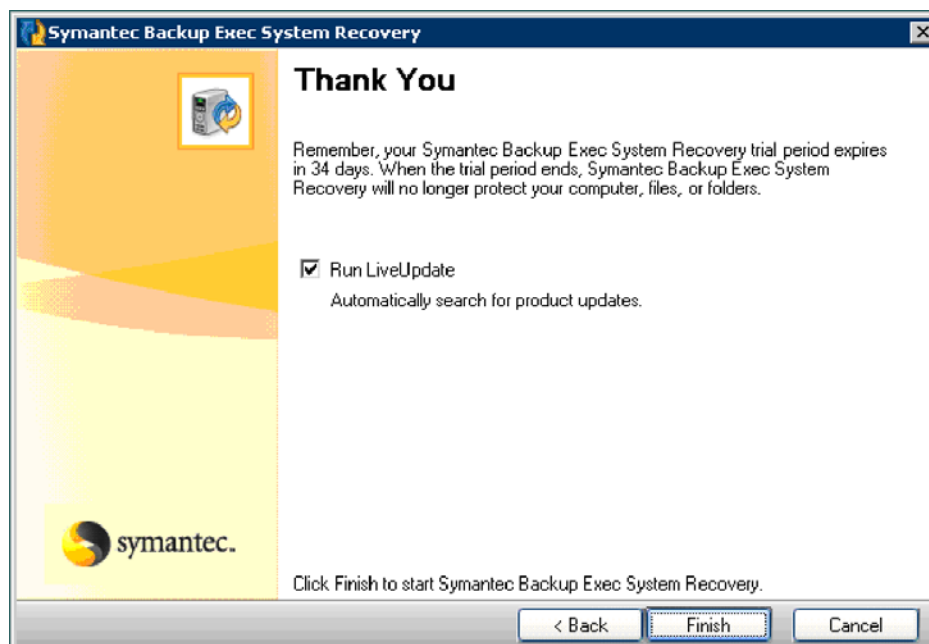


4. Click on the Next button to proceed to the Product Activation window. Enter the appropriate license code as purchased by the Sage customer, or accept the default

setting to activate the license at a later time. Click on the Next button to proceed to the next step.

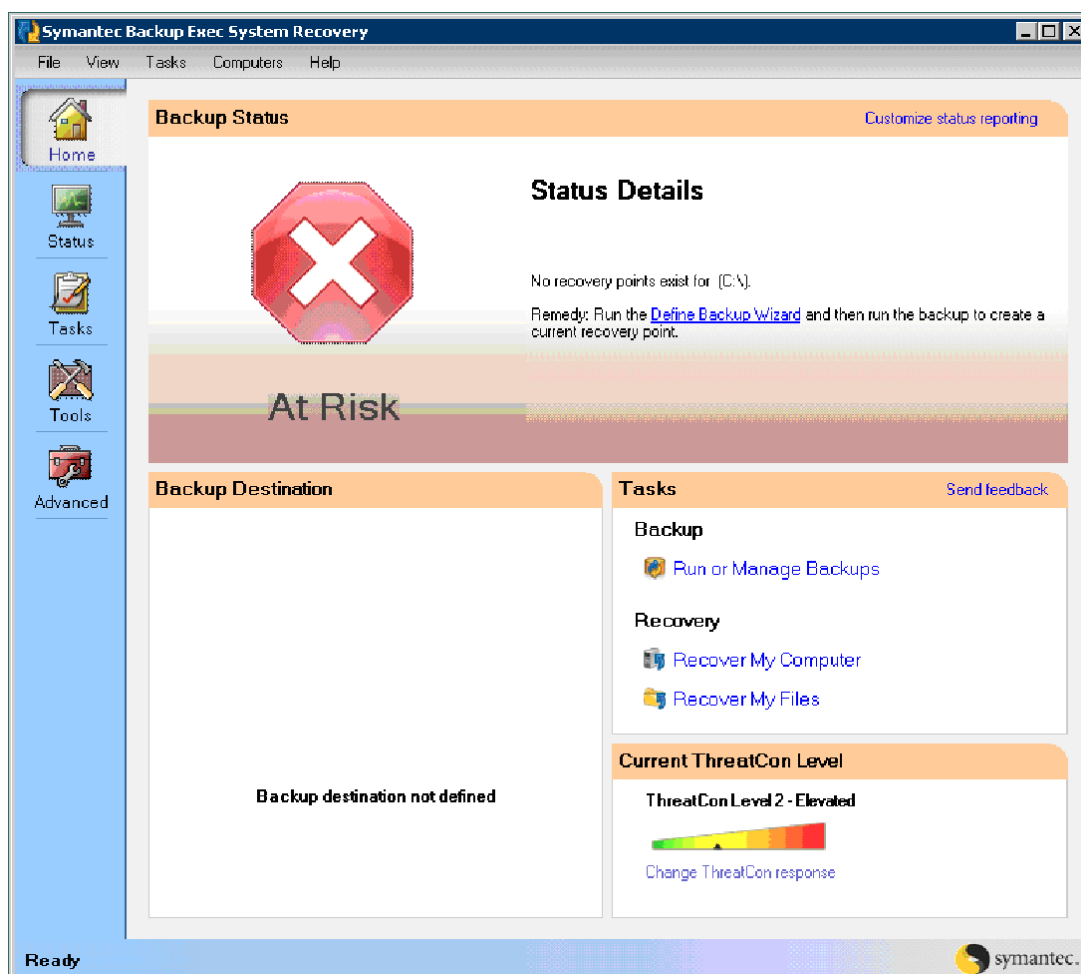


5. If you have selected the trial license, the Trial Period Reminder window is displayed. Note that the Run LiveUpdate checkbox is selected automatically. Click on the Finish button to proceed to the next step.



6. The LiveUpdate Express start window is displayed. Click on the Start button to proceed with installation of System Recovery patches. When this process is complete, click on the Close button to proceed to System Recovery configuration.

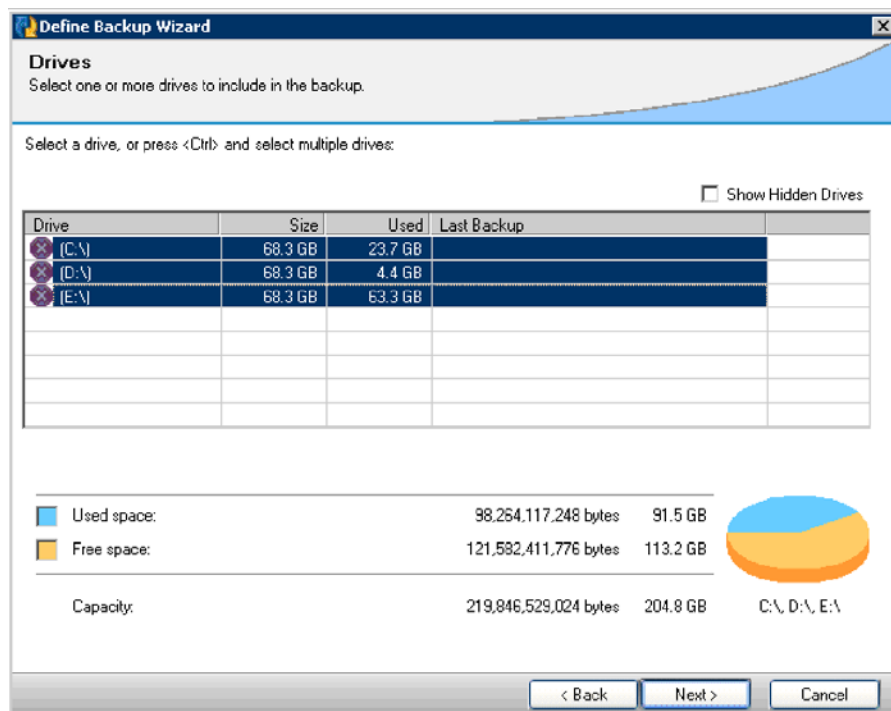
7. The System Recovery administration application window is displayed.



Click on the Define Backup Wizard link in the top pane of the window to proceed with configuration

8. The Define Backup Wizard welcome screen is displayed. Click on the radio button with the label 'Back up my computer' and click on the Next button to proceed to the next step.

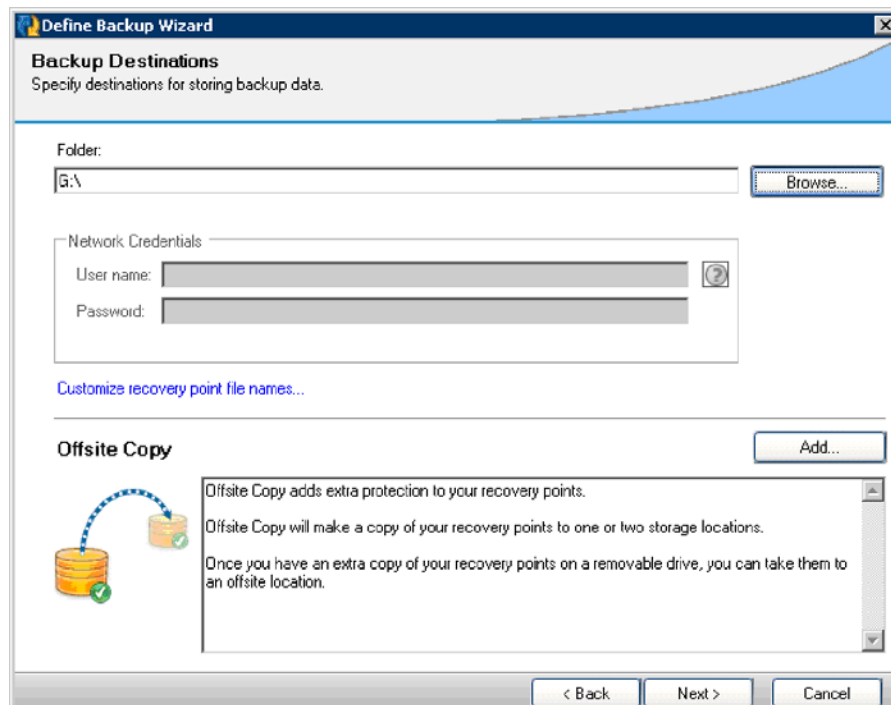
9. The Drive Selection window is displayed.



Drive partitions will be displayed in the drive list. Typically, three logical drives are defined for most Sage Intergy database servers. Holding down the CTRL key, click on all three drives to highlight them as selections. Click on the next button to proceed to the next step.

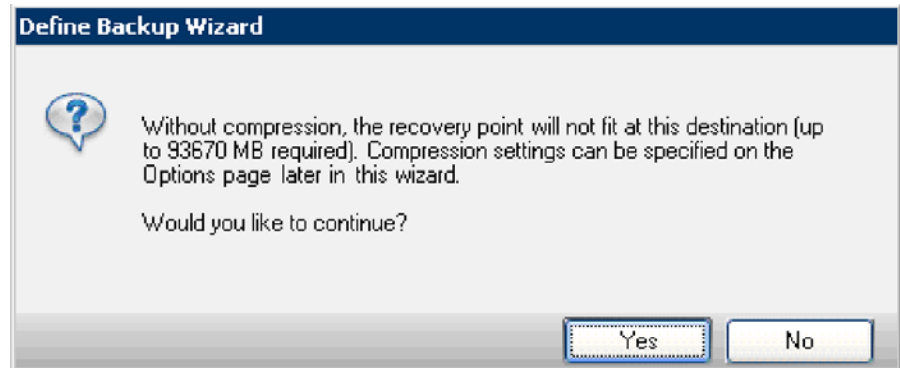
10. The Recovery Point Type selection window is displayed. Select the Independent Recovery Point option, and then click on the Next button to proceed to the next step.

11. The Backup Destinations configuration window is displayed.



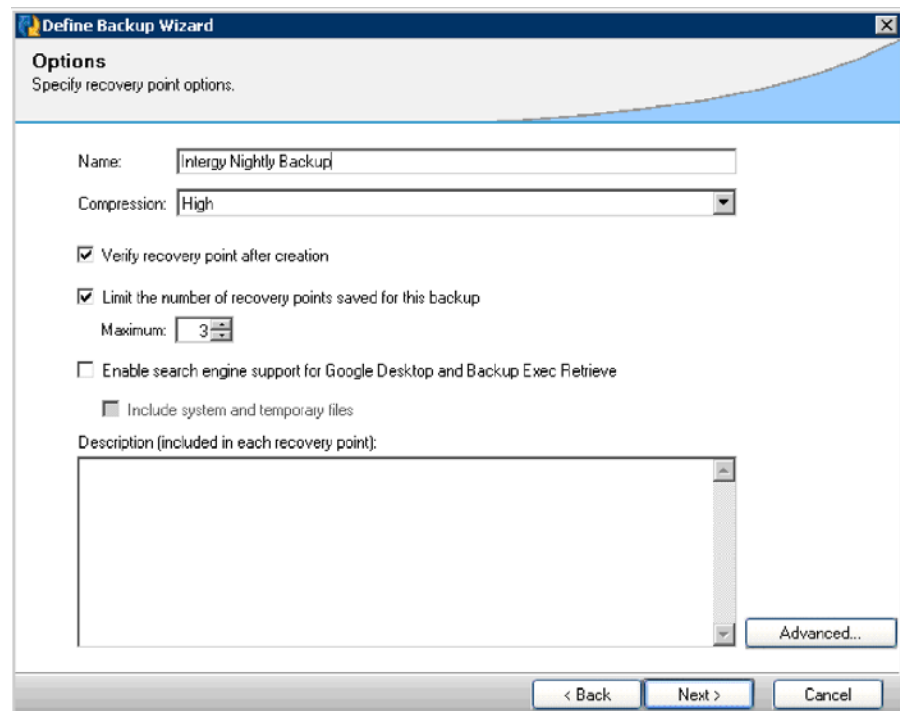
Click on the Browse button to select the appropriate backup destination device. For sites using the RDX Quickstore removable drive, configure a drive letter as the destination folder. In a typical installation, this drive will be G:. Some backup devices may not be configured to correspond to a logical drive, so click through the available backup device options to select the correct device. Click on the Next button to proceed to the next step.

- 12.** In some installations, a storage capacity warning window may be displayed.



This warning may be displayed if a tape is not already loaded, or if the RDX Quickstore drive is not formatted. Click on the Yes button to acknowledge the warning if it is displayed and proceed to the next step.

- 13.** The Recovery Point Options configuration window is displayed.

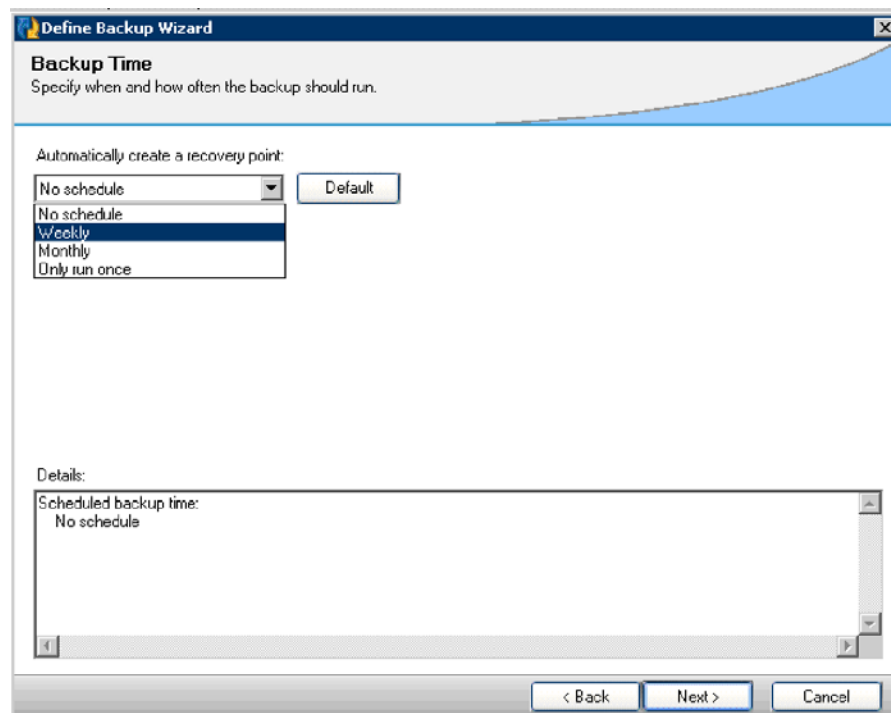


Configure the following parameters on this window:

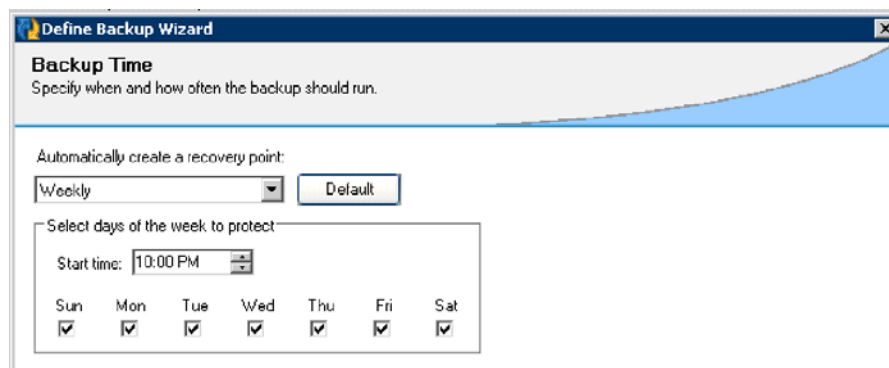
- Backup job name - Sage Intergy Nightly Backup
- Compression - High
- Verify recovery point after creation checkbox selected

Accept all other default configuration settings. Click on the Next button to proceed to the next step.

14. The Command Files configuration window is displayed. No configuration settings should be changed on this window. Accept all default values and click on the Next button to proceed to the next step.
15. The Backup Time configuration window is displayed.



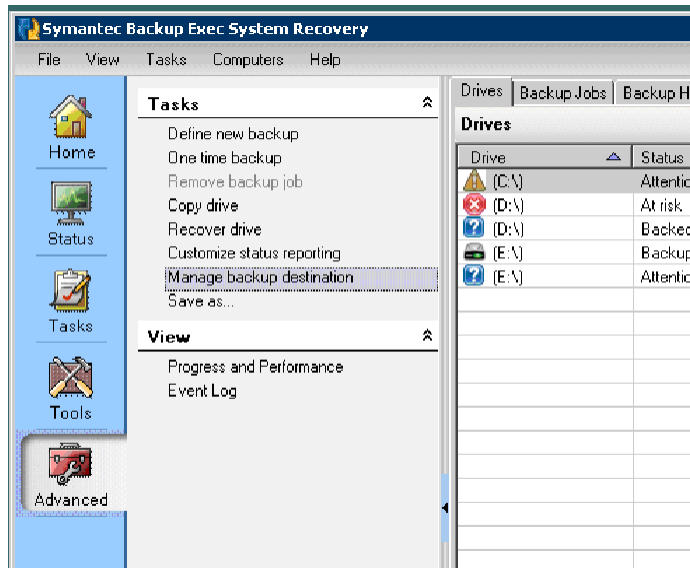
Click on the drop-down menu and select the Weekly option for automatic recovery point creation. After selecting this option a new set of configuration parameters will be displayed.



Set the start time to 10:00 pm and select all checkboxes for all days of the week. If necessary, use a different time that suits the schedule of the customer site. Click on the Next button to proceed to the next step.

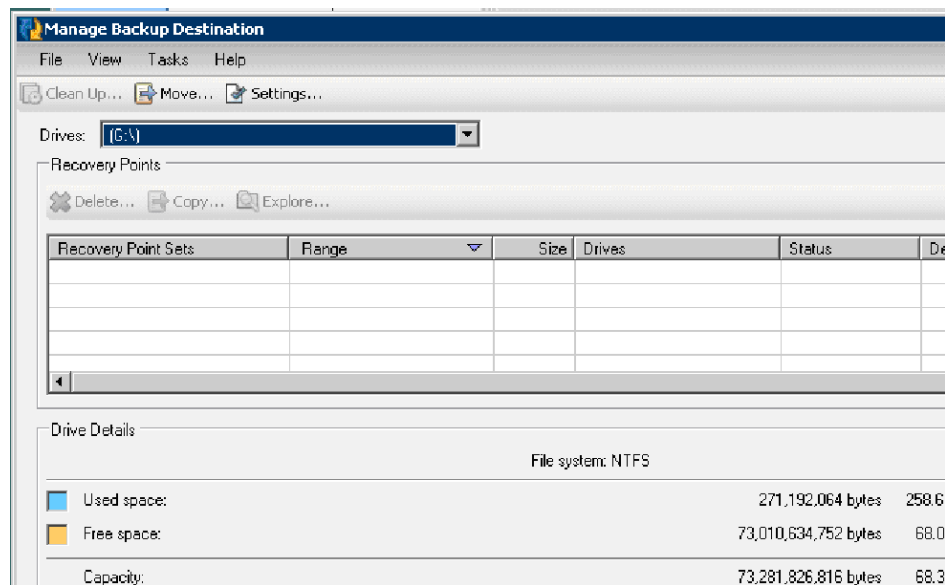
16. A summary window will be displayed that displays all of the options that have been configured. Review this list carefully, and then click on the Finish button to complete configuration.
17. The System Recovery administration application window is displayed again. Click on the 'Advanced' icon in the left pane to proceed with customization of backup media overwrite parameters.

18. The Advanced backup administration options window is displayed.



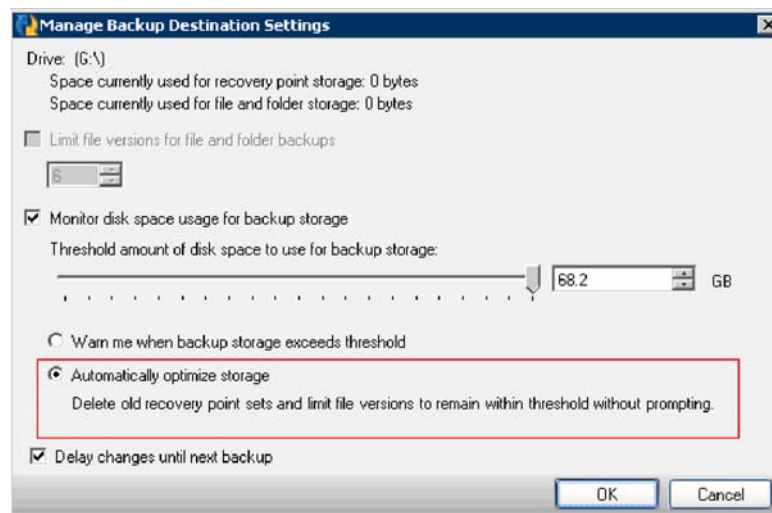
Click on the Manage Backup Destination item in the Tasks list to proceed to the next step.

19. The Manage Backup Destination window is displayed.



From the drop-down list, select the drive letter or device that is assigned. In a typical installation, this will be the G: drive assigned to the RDX Quickstore removable disk. Click on the Settings button at the top of the window to proceed to the next step.

20. The Manage Backup Destination Settings window is displayed.



Make sure that the 'Automatically optimize storage' radio button is selected. This setting will permit automatic overwriting of old backup images and prevent backup failure due to a lack of storage space. Click on the OK button to save these settings, and then click on Yes when the confirmation prompt is displayed.

Copy Backup Batch Files

21. From the File Storage Area, download the Standard Sage Intergy Backup Batch File archive and extract the files to a temporary location. You will have to create new directories C:\IntergyBackup\SIS and C:\Intergy\Solion to store these files on the Sage Intergy Server. These scripts are subject to updates and changes, so follow the directions in the Readme file that is included in the archive.

Test Backup Job

22. Before normal usage of Sage Intergy occurs, you should test the backup job. Right-click on the scheduled job in the Backup Exec Administration window on the Job Setup tab. Select the 'Run Now' menu item to test the backup job, which may take several minutes to complete.

Appendix B: Antivirus Configuration

All customer computing environments should include a virus protection program on all servers and all workstations. If the customer does not already have one installed or purchased, Sage offers Symantec Endpoint Protection as its preferred virus protection application.

Note that not all antivirus applications are recommended for use with Sage Intergy. For a specific list of recommended applications, refer to the Sage Intergy System Requirements document.

Detailed installation instructions are not included in this appendix. Most configuration options provided apply to all antivirus products, although some options are specific to the Symantec Endpoint Protection product. For additional information on installation or configuration of the Symantec product, please visit the documentation web site at <http://www.symantec.com/enterprise/support/documentation.jsp?pid=51852>

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Typical Installation Settings

The following table lists typical installation settings used for virus protection applications in most environments. Note that some settings are specific to the Symantec Endpoint Protection product, and some are generic to all virus protection applications. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference for installation of all antivirus programs.

Application Component	Configuration Item	Value or Setting
Symantec Endpoint Protection Configuration Options	Operation Mode	Unmanaged
	Network Threat Protection	Disabled
	Application and Device Control	Disabled
	Auto-Protect Settings	Use Defaults
	Scheduled Updates	Random intervals (between 4:00 and 5:00 am, or between 8:00 and 9:00 pm depending on the schedule of the customer site)
All Antivirus application settings	File name exclusions	All files with the .pl extension All files with the .prl extension All files with the .r extension All files with the .wrx extension
	Server directory exclusions	C:\Intergy D:\Intergy E:\Intergy C:\IntergyBackup Include all subdirectories
	Workstation directory exclusions	C:\Intergy Include all subdirectories

Directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Specific settings are described in more detail on the following pages.

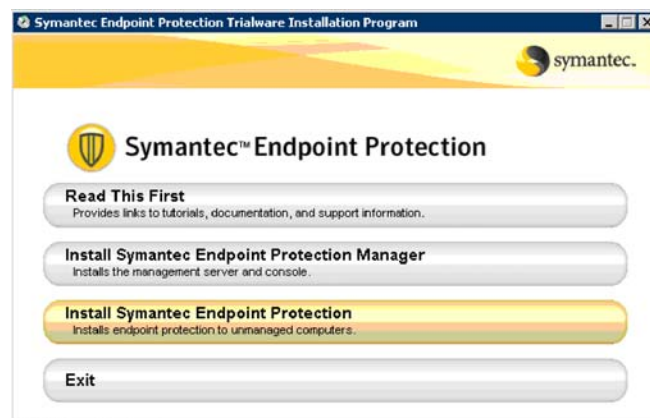
Installation of Symantec Endpoint Protection

Sage offers the Symantec Endpoint Protection product for customers who do not already have an antivirus product, or who wish to purchase one specifically for use with the Sage Intergy suite. For detailed information on installation procedures, refer to the following URL:

<http://service1.symantec.com/support/ent-security.nsf/854fa02b4f5013678825731a007d06af/ac120aa7be3e522688257346007dfe45?OpenDocument>

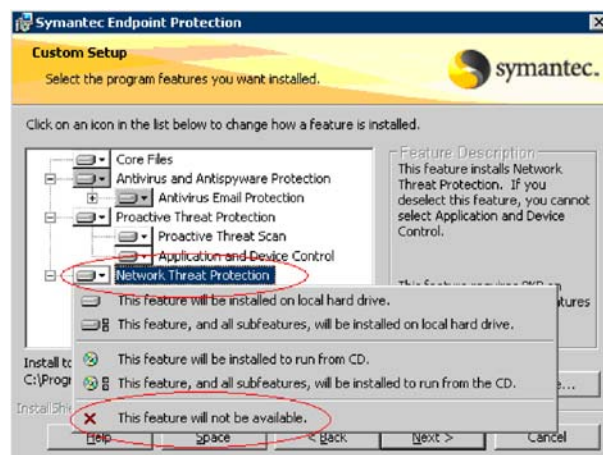
During initial installation, select the following installation parameters:

- Installation option - Select the Symantec Endpoint Protection option. Do not select the Symantec Endpoint Protection Manager, which is the default choice at the top of the menu.



The Symantec Endpoint Protection Manager is used to administer multiple installations of anti-virus products and is not licensed for use on Sage Intergy servers. Select only the base Symantec Endpoint Protection option.

- Client Type - Unmanaged Client.
- Setup Type - Custom Installation.
- Custom Setup - Exclude Network Threat Protection and Application and Device Control features. Select the 'This feature will not be available' installation option for both listed items.



- Protection Options - Enable both Auto-Protection and LiveUpdate.

All other configuration requirements also apply to the Symantec Endpoint Protection product. Configure file extension and directory exclusions for each Sage Intergy server or workstation as specified in the next section.

Settings for All Antivirus Applications

Many configuration options are generic to all virus protection applications. Many antivirus products permit the installer to specify exclusions, so that specific file types or directories on the installed system are not modified or scanned as a result of normal operation. Use the following settings for all antivirus applications installed on Sage Intergy workstations or servers.

File Name Exclusions

Many components of Sage Intergy contain code or strings which may produce a false positive result during a virus scan. To prevent the Sage Intergy application from being disrupted, all antivirus application should be configured to exclude from scanning all files with the following extensions:

- .pl
- .prl
- .r
- .wrx

This type of exclusion applies to all Sage Intergy workstations and servers.

Directory Exclusions

In addition to specific file extension exclusions, directories used for Sage Intergy application data and temporary files must be completely excluded from virus scanning. For Sage Intergy servers, configure antivirus applications to exclude the following directories:

- X:\Intergy (on all drives) and all subdirectories
- C:\IntergyBackup and all subdirectories

For Sage Intergy workstations, configure antivirus applications to exclude the following directory:

- C:\Intergy and all subdirectories

Any Sage Intergy workstation or server that is configured with a non-standard directory structure may also use other drive letters. Ensure that the Sage Intergy application directory configured during installation is excluded from virus scanning. Always exclude the directories used to store Sage Intergy database backup files.

Next Steps

After successfully installing any antivirus application, configure scanning to occur at random intervals between 4:00 and 5:00 am, or between 8:00 and 9:00 pm depending on the schedule of the customer site. Adjust the scanning interval as required so that other Sage Intergy server operations are not impeded.

Appendix C: Intergy Technical Process Reference

Technicians who are responsible for implementing Sage Intergy may be required to perform certain maintenance functions in the course of installation or upgrade. This appendix provides a summary of the steps needed to complete these technical processes during installation and maintenance of Sage Intergy.

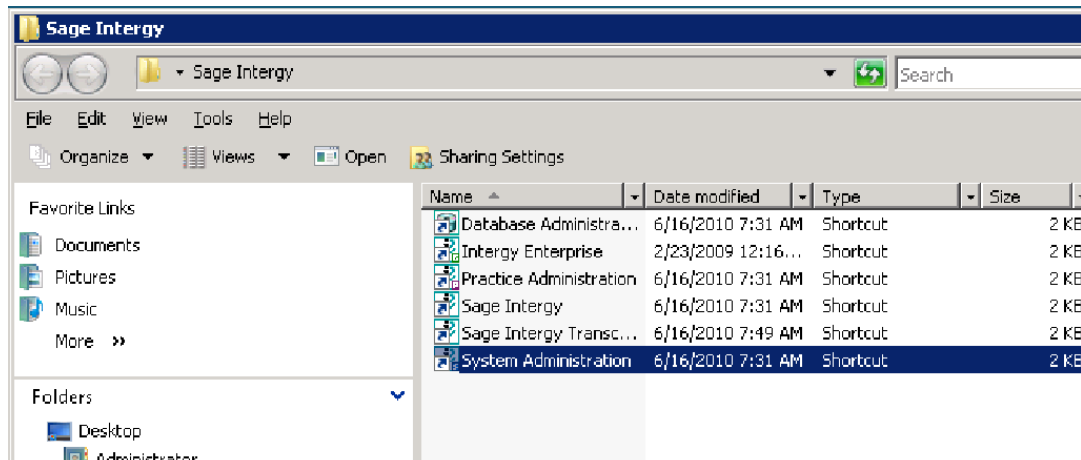
Placing Sage Intergy in Maintenance Mode	14-2
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Placing Sage Intergy in Maintenance Mode

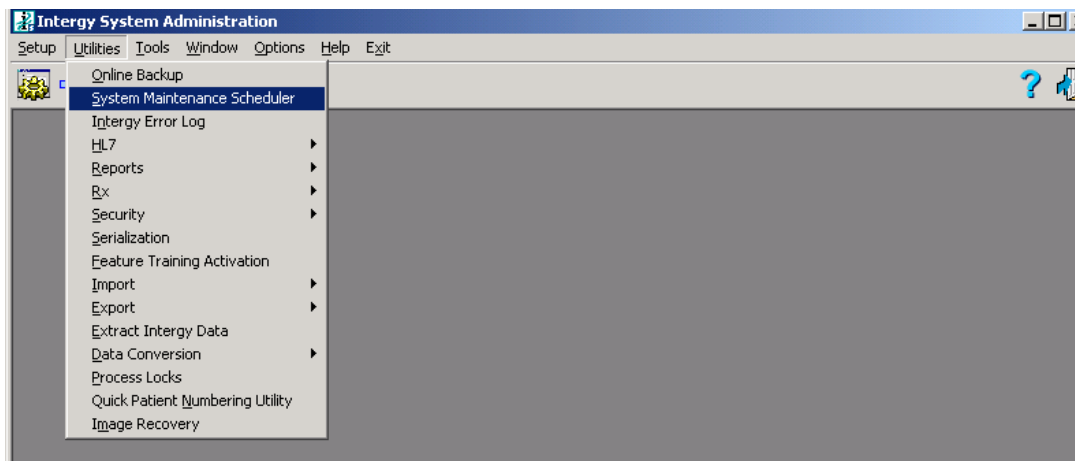
It is necessary to place the Sage Intergy Database in maintenance mode before proceeding with some changes to the Progress database. These instructions assume you are logged on to the Sage Intergy database server in a Windows environment, or on the AIX administrative console Windows workstation in an AIX environment.

Open Sage Intergy System Maintenance

1. From the Sage Intergy desktop folder double-click on the System Administration icon.

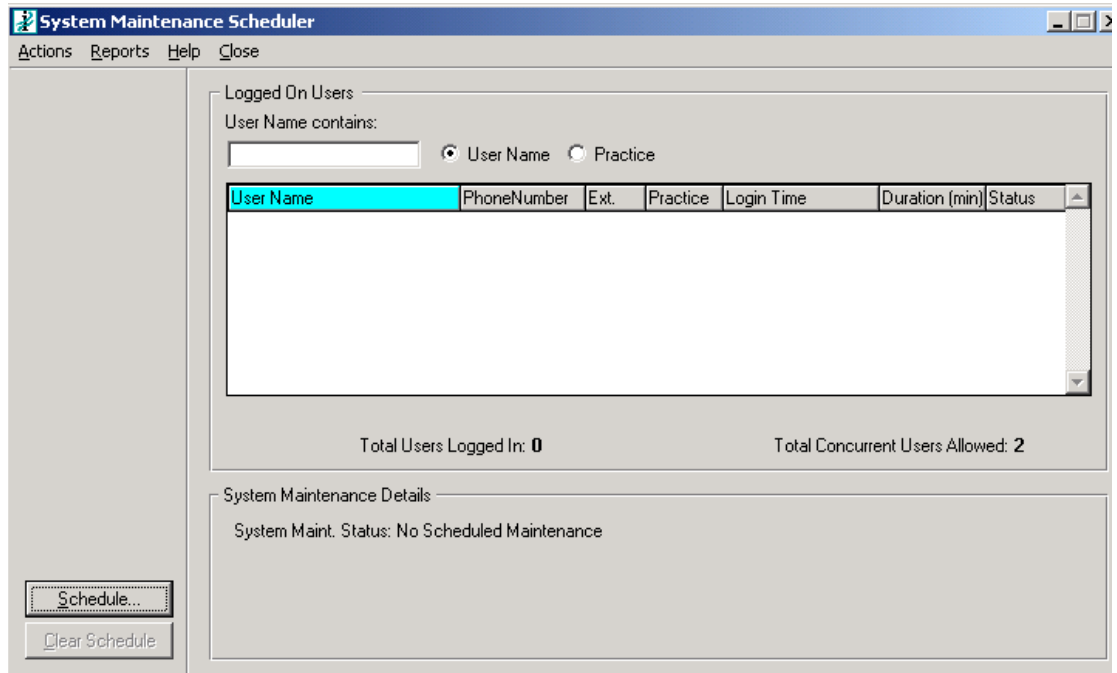


2. The System Administration logon window is displayed. Enter 'sysadm' for the user name and the enter appropriate password.
3. The Sage Intergy System Administration Desktop is displayed. From the Utilities menu, select the System Maintenance Scheduler menu item.

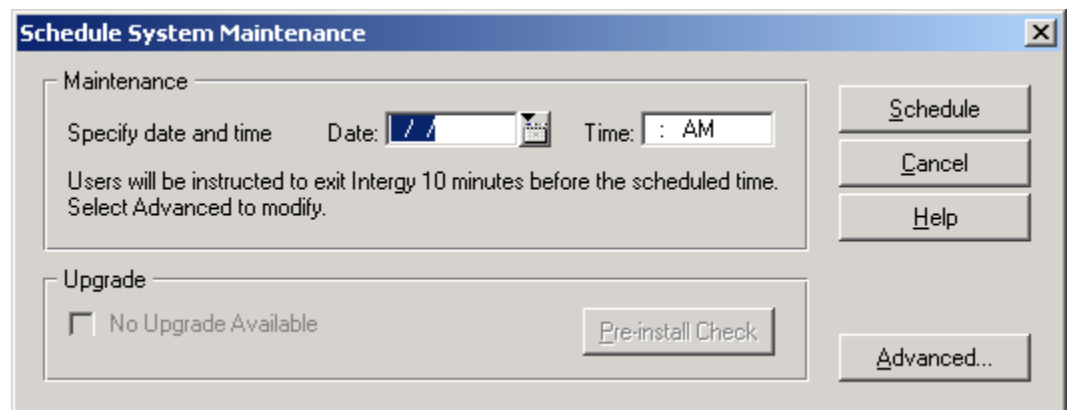


4. The System Maintenance Scheduler window is displayed. If any users are currently connected and using Sage Intergy, their user information will be displayed in the table

shown. To put the Sage Intergy Database into maintenance mode, click on the schedule button to proceed.



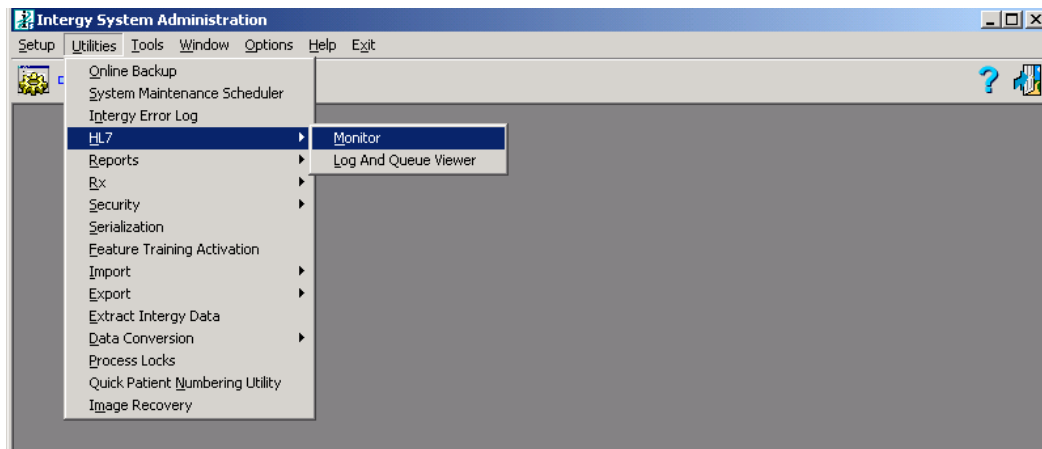
5. The maintenance schedule dialogue is displayed. Enter the current time and date, and click on the Schedule button to proceed. If you click on the Advanced button, you will be offered the option of delaying the scheduled maintenance and sending a warning notification to users. This is not required for new installations.



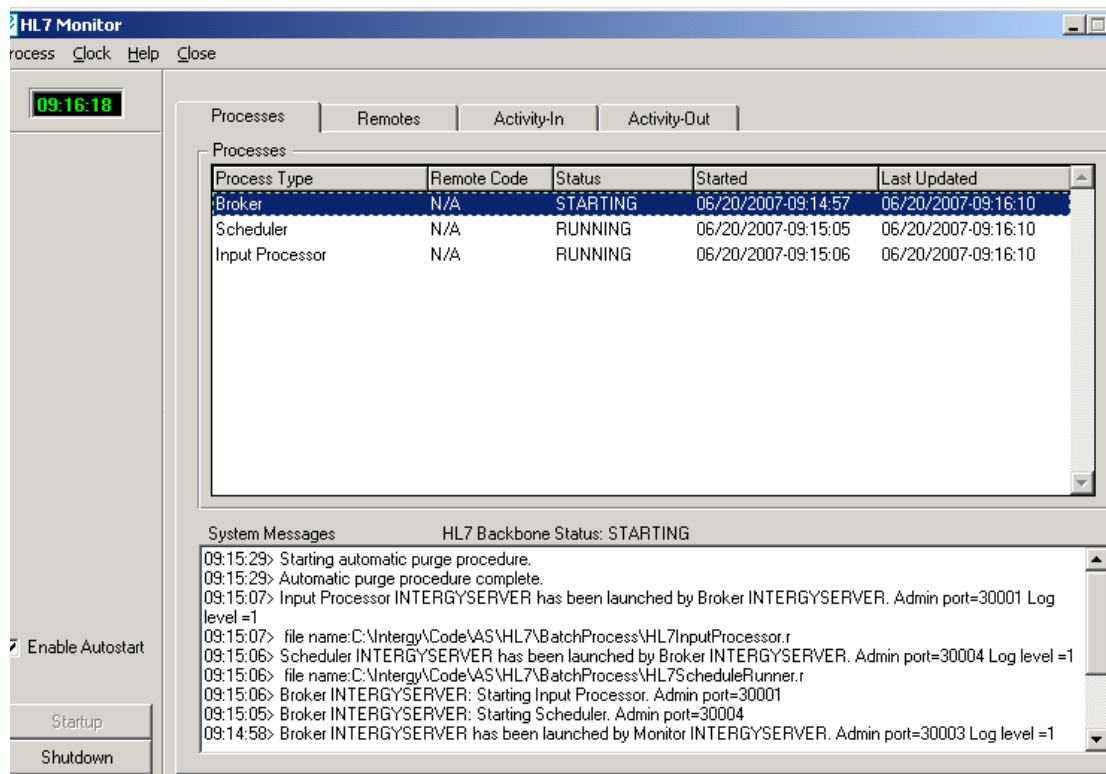
Once the database is in maintenance mode, no logons are permitted.

Manually Shutting Down HL7 Processes

- To shut down the HL7 processes manually, use the Sage Intergy System Administration Desktop again. From the Utilities menu, open the HL7 menu and select the Monitor item.

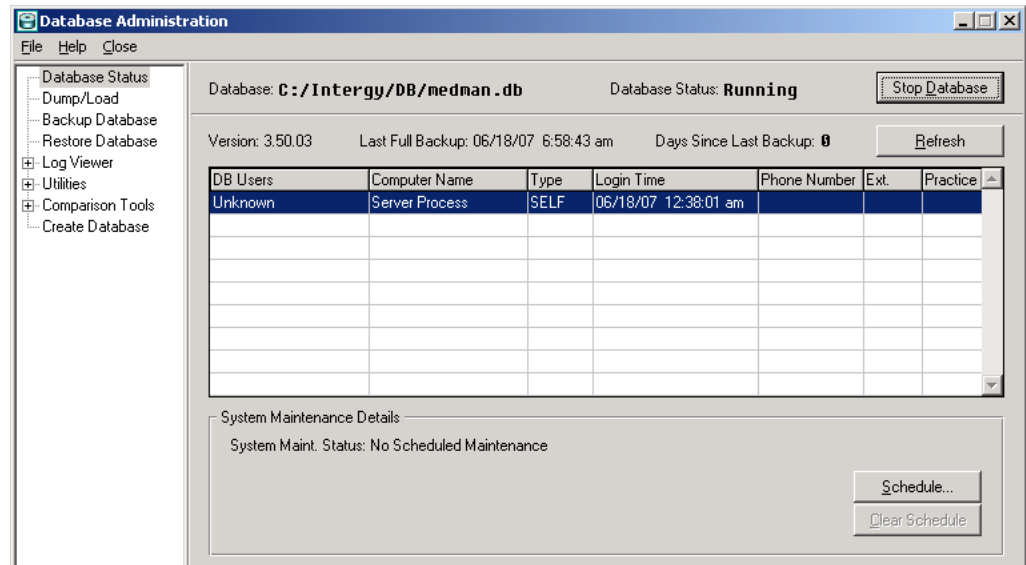


- The HL7 monitor is displayed. Note the buttons and checkbox in the lower left corner. Uncheck the 'Auto Start' checkbox so that processes do not start by themselves during the upgrade process.
- To shut down all processes, click on the Shutdown button and observe the messages displayed in the System Messages list. When the Processes list box is empty and does not contain the Broker process as a list item, HL7 is successfully shut down.



Manual database shutdown

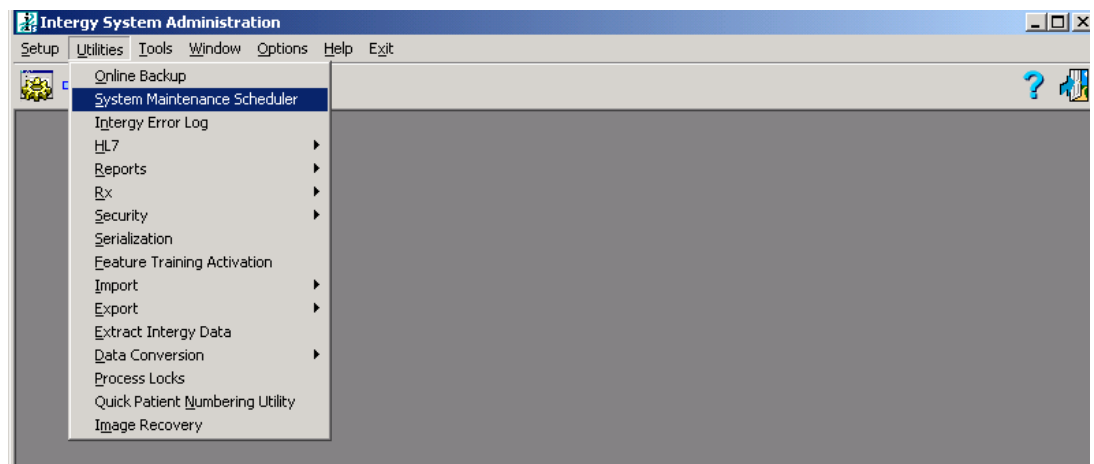
9. From the Sage Intergy programs folder, open the Database Administration tool.



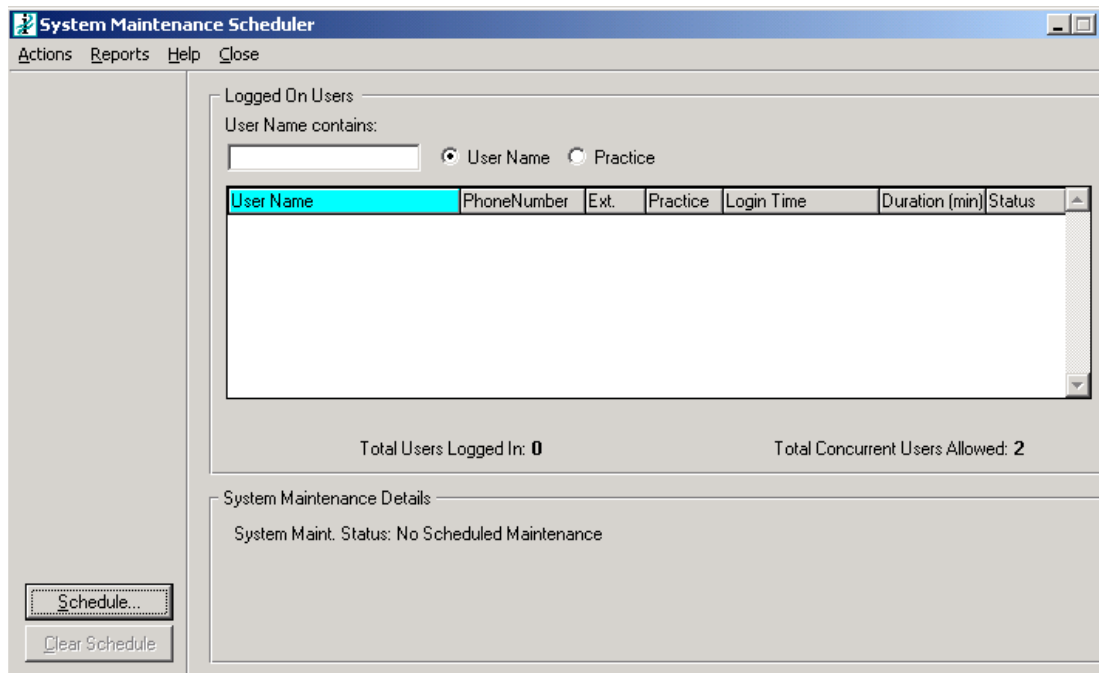
10. Click on the Stop Database button to stop the database. Close the Database Administration tool. As a best practice, open the Windows Task Manager and make sure that all related Sage Intergy processes have stopped. This includes processes with the names '_mprosrv', '_proapsv' and '_progres'.

End System Maintenance

11. After completing Progress database changes or Sage Intergy application changes, you will take the Sage Intergy Database Server out of maintenance mode. At the Sage Intergy System Administration Desktop, open the Utilities menu and select the System Maintenance Scheduler menu item.



12. The System Maintenance Scheduler window is displayed. To take the Sage Intergy Database out of maintenance mode, click on the clear schedule button.

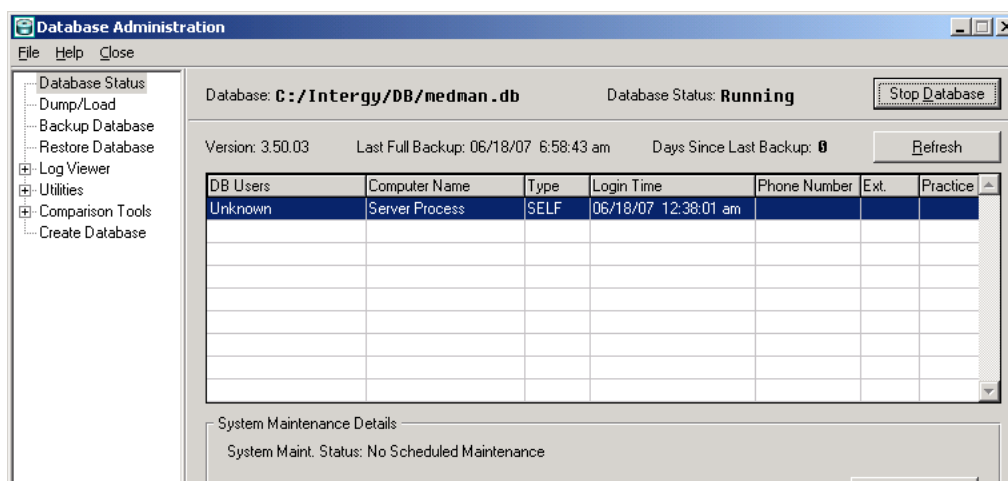


You may be required to reboot the server after taking the Sage Intergy database server out of maintenance mode. Refer to the instructions for the specific installation process for more information.

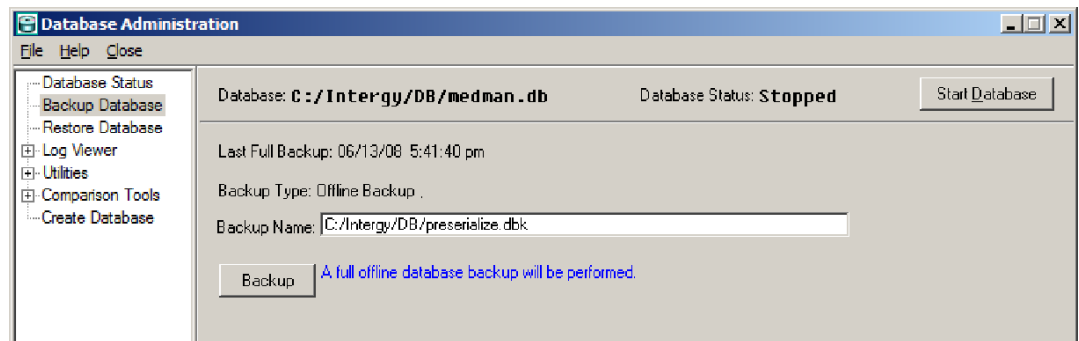
Manual database backup

In the course of upgrading Sage Intergy or changing configuration settings, you may be directed to perform a manual database backup. These instructions assume you are logged on to the Sage Intergy database server in a Windows environment, or on the AIX administrative console Windows workstation in an AIX environment.

1. From the Sage Intergy programs folder, open the Database Administration tool.



- Click on the Backup Database item in the left pane to perform a database backup. This file should be stored locally, but not in the same location as the normally scheduled backup.

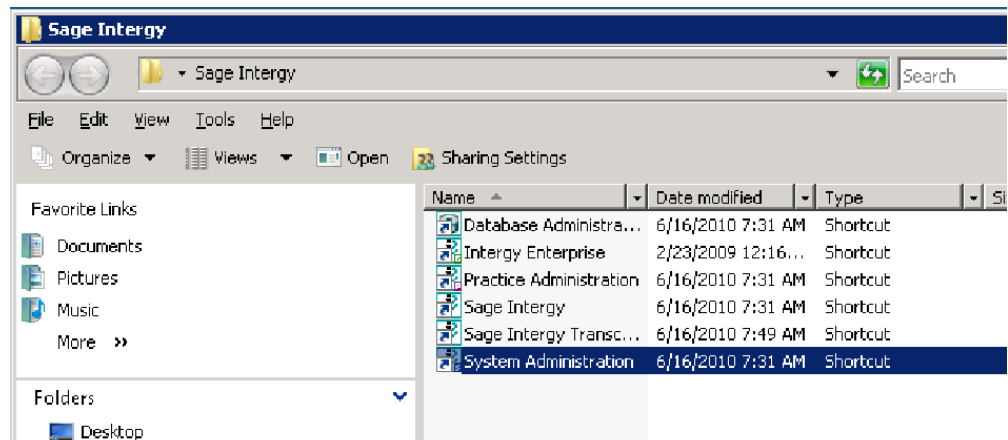


- When the backup is complete, click on the Stop Database button to stop the database. Although the Sage Intergy installer is designed to stop the database during the upgrade, it is a best practice to perform this task manually to ensure that all database instances are stopped before proceeding. Close the Database Administration tool when the backup is complete.

Applying New Serialization and Licensing

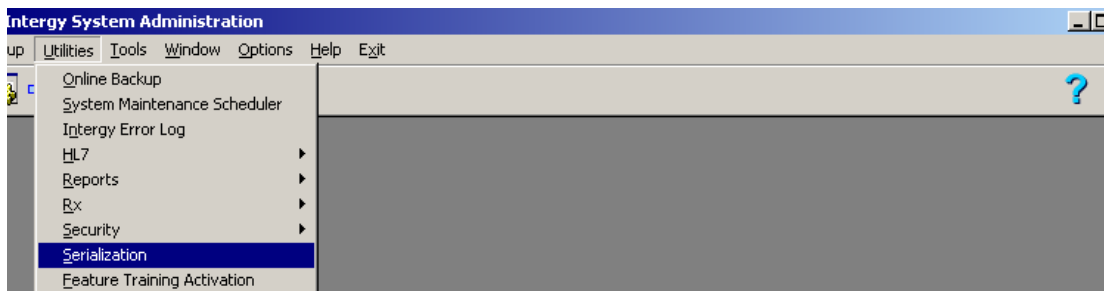
If the customer is upgrading from version 1.25 or older, a new serialization file may be required. These instructions assume you are logged on to the Sage Intergy database server in a Windows environment, or on the AIX administrative console Windows workstation in an AIX environment.

- To apply new serialization, open the Sage Intergy System Administration Desktop.

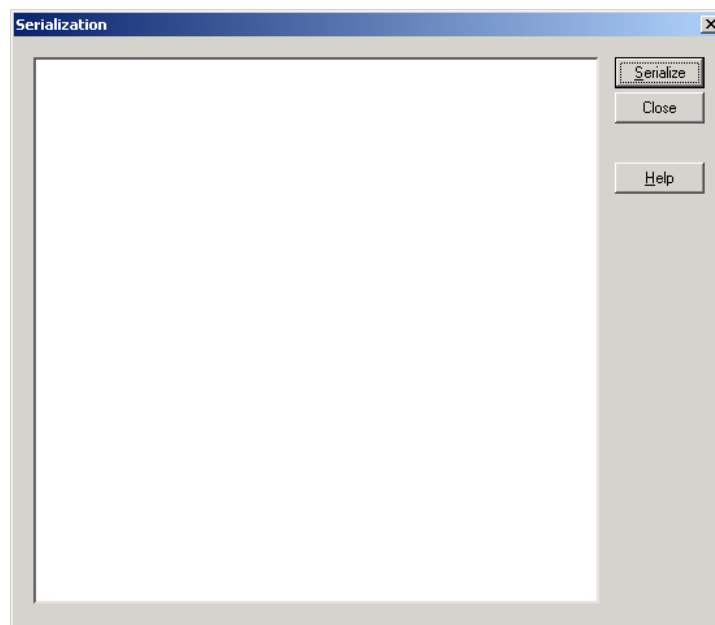


- The Sage Intergy System Administration Logon window is displayed. Type 'sysadm' for both the username and the password, and click on the OK button to log in. This is different from the Windows setup, which uses a different password.

3. The Serialization window may be displayed immediately if the previous license is no longer valid. Otherwise, it will be necessary to select the Serialization item from the Utilities menu in the System Administration Desktop.

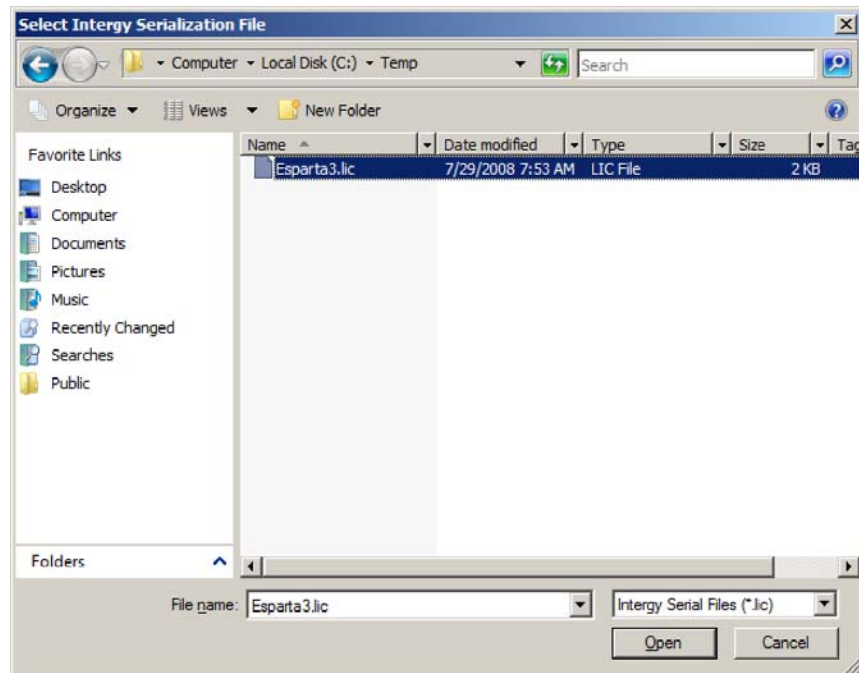


4. Previous serialization data may be displayed here, depending on what products were purchased by the customer for the version prior to the upgrade. Click on the Serialize button.

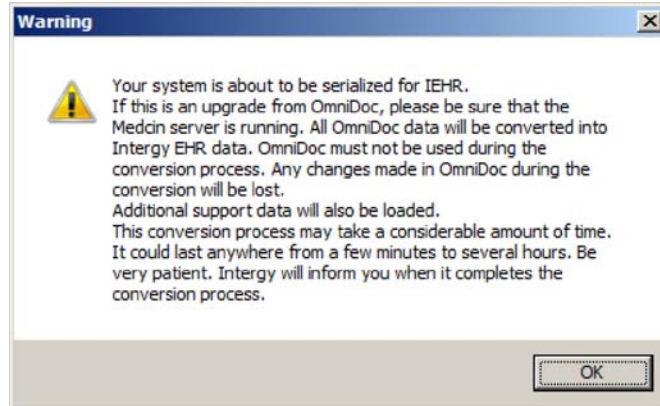


5. The Select Sage Intergy Serialization File window is displayed. At this point, browse to the directory where the new license file is stored. This file will usually have the file

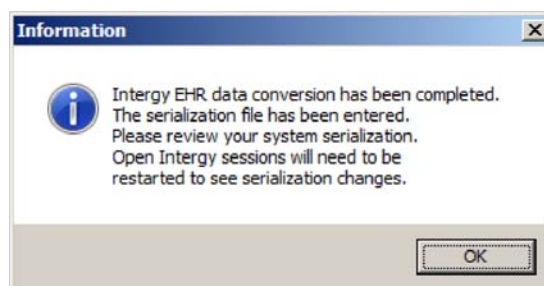
extension LIC. Alternately, you may copy this file to the C: drive of the workstation or Windows server. Select the file and click on the Open button to proceed.



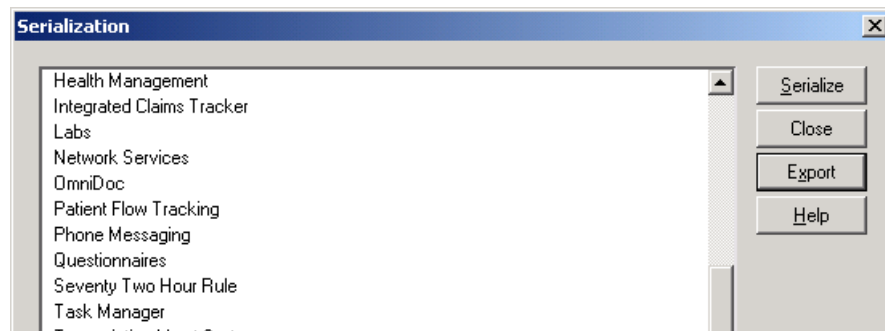
6. If this serialization file includes a license for IEHR, a warning window will also be displayed. Read the text of the warning. Notify the customer about the restriction on OmniDoc usage if necessary. Click on the OK button to proceed.



7. If EHR installation occurs, another notification window will be displayed to indicate that Sage Intergy EHR conversion has completed. Because this is a upgrade installation, there are no open Sage Intergy application sessions to restart. Click on the OK button to proceed.



8. After several minutes, the Serialization window is displayed with content and information on licensed products and subsystems. If necessary, review this information with the customer representative to ensure that all purchased licenses are represented on the screen. Click on the Close button to exit the Serialization window.



RxDUR Installation and Configuration

Many customer environments will use the data and records stored in Sage Intergy for the purpose of writing and cataloging prescriptions. To facilitate this task, Sage Intergy customers may be serialized for the RxDUR product. Installation and configuration of RxDUR requires separate media. RxDUR data update disks are issued on CD-ROM or DVD-ROM and are available quarterly.

Serialization and installation of RxDUR may occur at any point after successful completion of Sage Intergy server installation. After initial installation, updates may be performed by the customer without intervention from Sage technicians or support.

Prerequisites

Before installing RxDUR on any Sage Intergy server, the following prerequisite conditions must be met:

- Four gigabytes of storage space must be available on the drive where the primary database is stored.
- Four gigabytes of storage space must be available on the drive where Sage Intergy temporary data is stored.
- Serialization includes RxDUR. This information may be verified by viewing the Serialization item in the Utilities menu of the Sage Intergy System Administration desktop. See page 14-7 for more information on serialization of Sage Intergy.

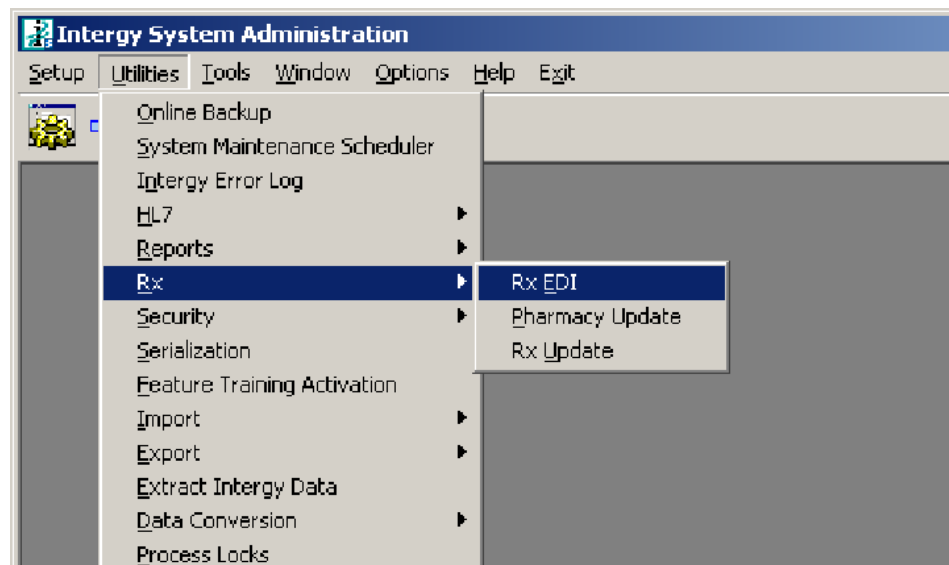
Installation

Installation of the RxDUR update is very similar for both AIX and Windows environments. Each environment will use different configuration values to indicate where to access the update media and where to store files as they are copied. Instructions that are specific to one operating system only will be labeled below appropriately.

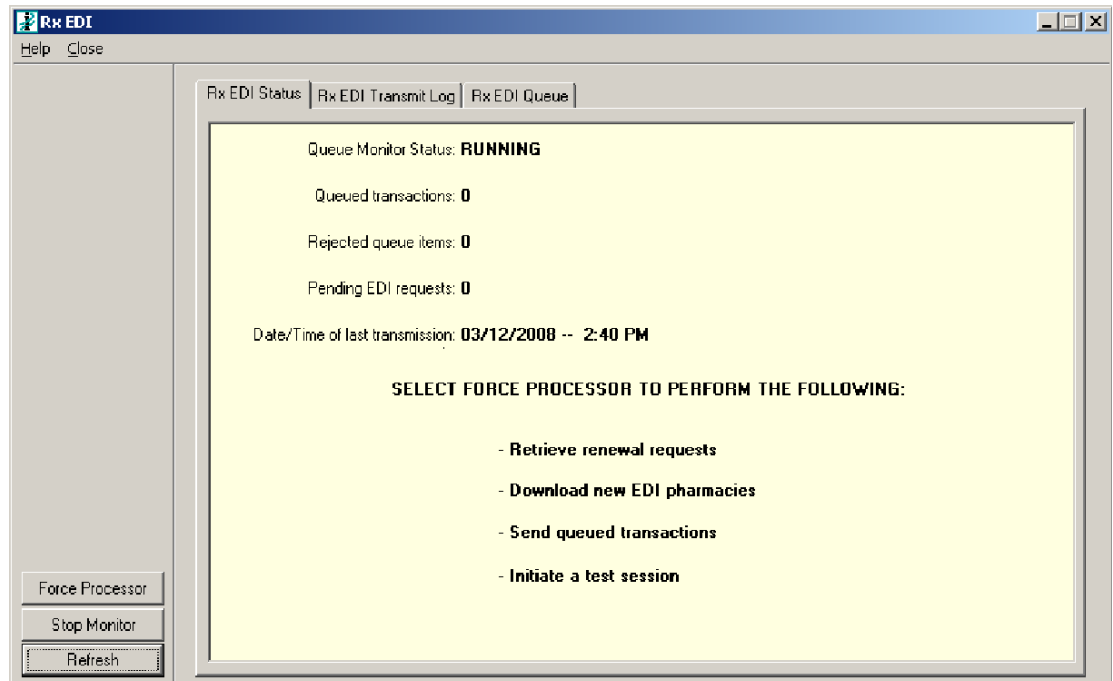
1. If you have not done so already, insert the RxDUR data update disk into the CD-ROM or DVD-ROM drive of the primary Sage Intergy database server. In Windows environments, log on to the database server using an account with local administrative access. In AIX environments, log on to the reporting server or the Windows desktop workstation where the Unix Administration Client is installed.

Queue Monitor Status Check

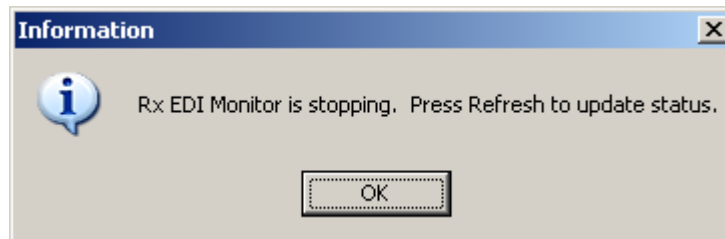
2. In the Sage Intergy System Administration desktop, click on the Utilities menu, open the RX menu and select the Rx EDI menu item.



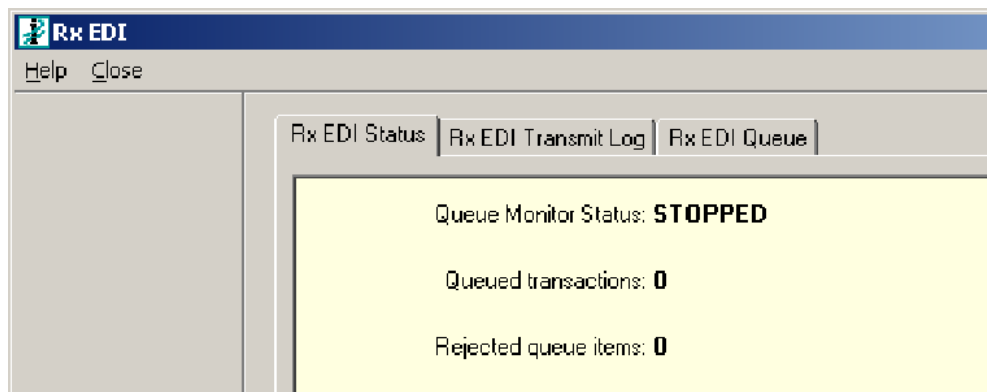
3. The Rx EDI Status window is displayed. Note the information displayed in the Queue Monitor Status field. If the queue monitor is in a running state, click on the Stop Monitor button in the lower left corner of the window to stop this process.



4. The Stop Monitor Information dialogue window will be displayed. Click on the OK button to return to the Rx EDI Status window.

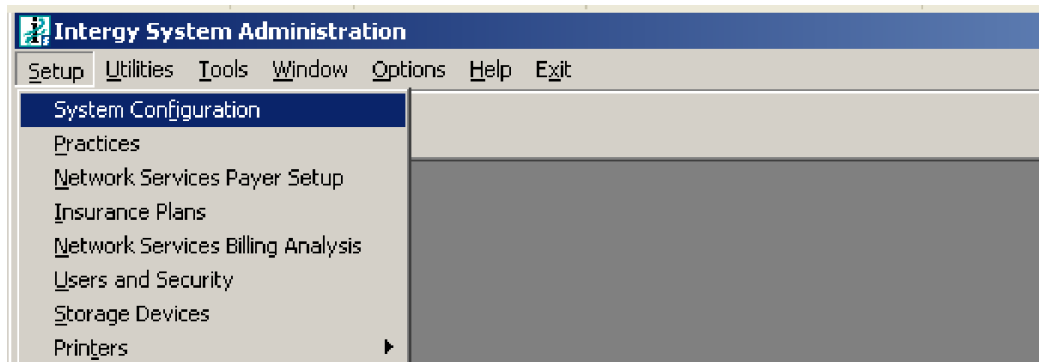


5. Click on the Refresh button to update the displayed status field. Once the stopped state is displayed, click on the Close menu item to close this window and return to the System Administration Desktop.

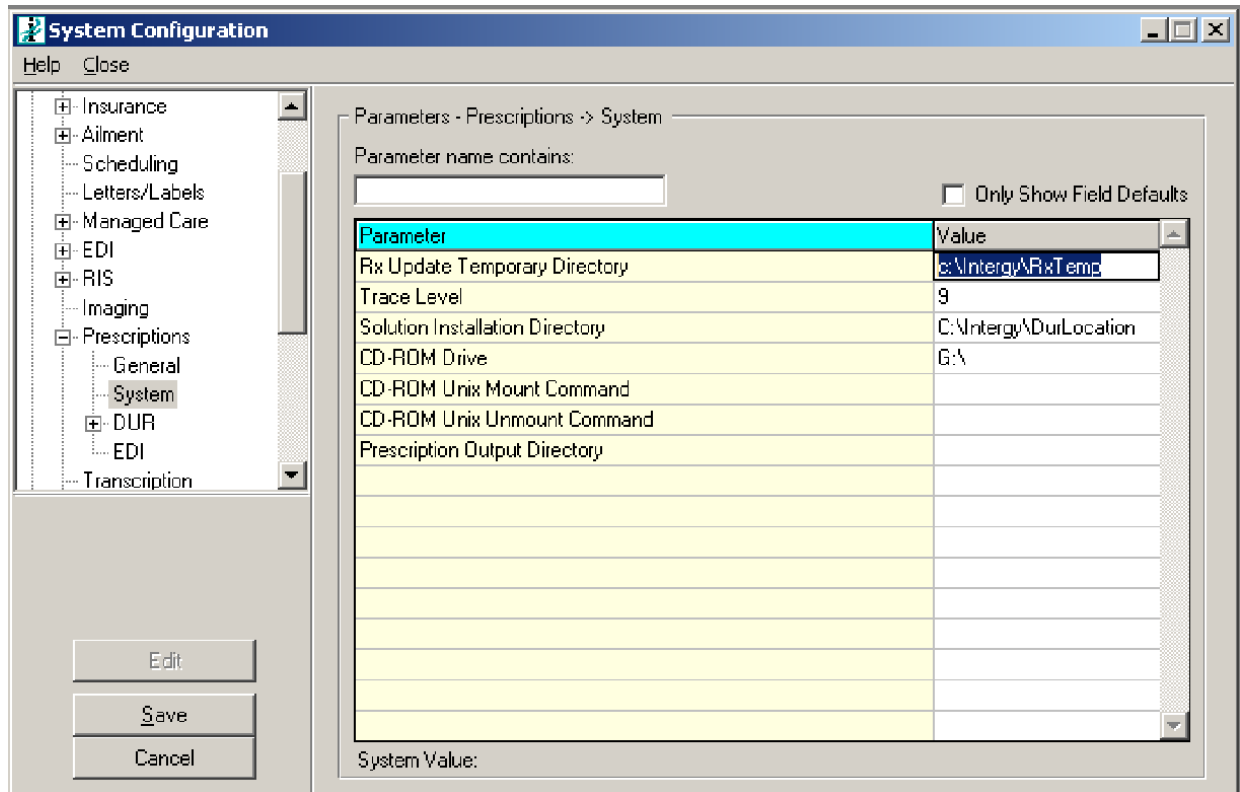


Media Configuration

6. From the Start menu, select the Sage Intergy program group and open the Sage Intergy System Administration desktop. Log on as sysadm with the appropriate password, and the Sage Intergy System Administration Desktop will be displayed. Under the System menu, select the System Configuration menu item.



7. The System Configuration window is displayed.



In the left pane, expand the Prescriptions item and click on the System item. Several parameters will be displayed in the right pane. Depending on the operating system in your environment, make the following System Configuration changes:

Table 1: Prescription System Configuration Parameters

Parameter	Value
Rx Update Temporary Directory	C:\Intergy\RxTemp
Trace Level	Accept default value.
Solution Installation Directory	C:\Intergy\DurLocation
CD-ROM Drive	For environments with Sage Intergy 3.00 and higher, this value will be populated automatically by the validator application. This field is 'X:\staging' in a typical environment where X is the drive letter for the CD-ROM drive. If entering this field manually, include the staging directory name.
CD-ROM Unix Mount Command	Leave blank
CD-ROM Unix Unmount Command	Leave blank
Prescription Output Directory	Accept default value

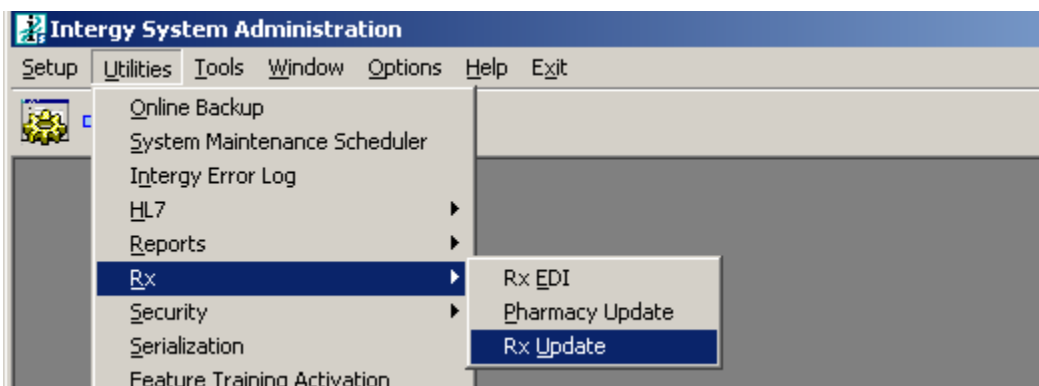
Before proceeding with any other part of the installation, verify that the temporary directory and the solution installation directory exist on the database server file system. You may be required to create these directories manually.

Note that the Rx Update Temporary Directory in Windows environments may not be C:\Intergy\Temp due to automated cleanup procedures that affect the contents of this directory. Do not use C:\Intergy\Temp for any directory in the Rx DUR installation or update process. Also, if you have previously installed an Rx DUR update, you will be required to rename subdirectories located in the solution installation directory. For example, the directory C:\Intergy\DurLocation\rxdbx should be renamed before proceeding. Typically you will use the name C:\Intergy\DurLocation\rxdbxold. Note that you will delete this directory at the end of a successful installation.

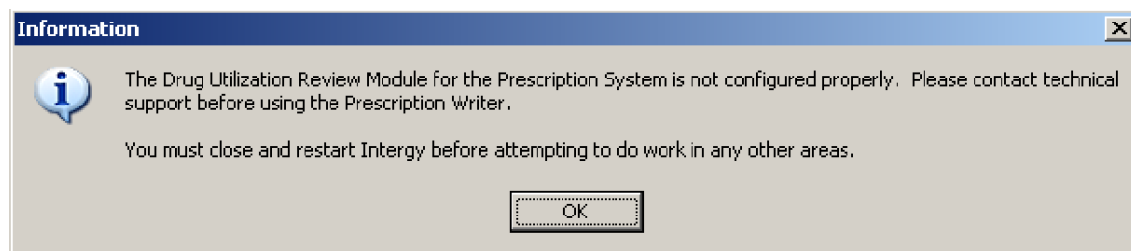
8. After clicking on the Save button, close the System Configuration window and return to the Sage Intergy System Administration Desktop.

Rx Update Execution

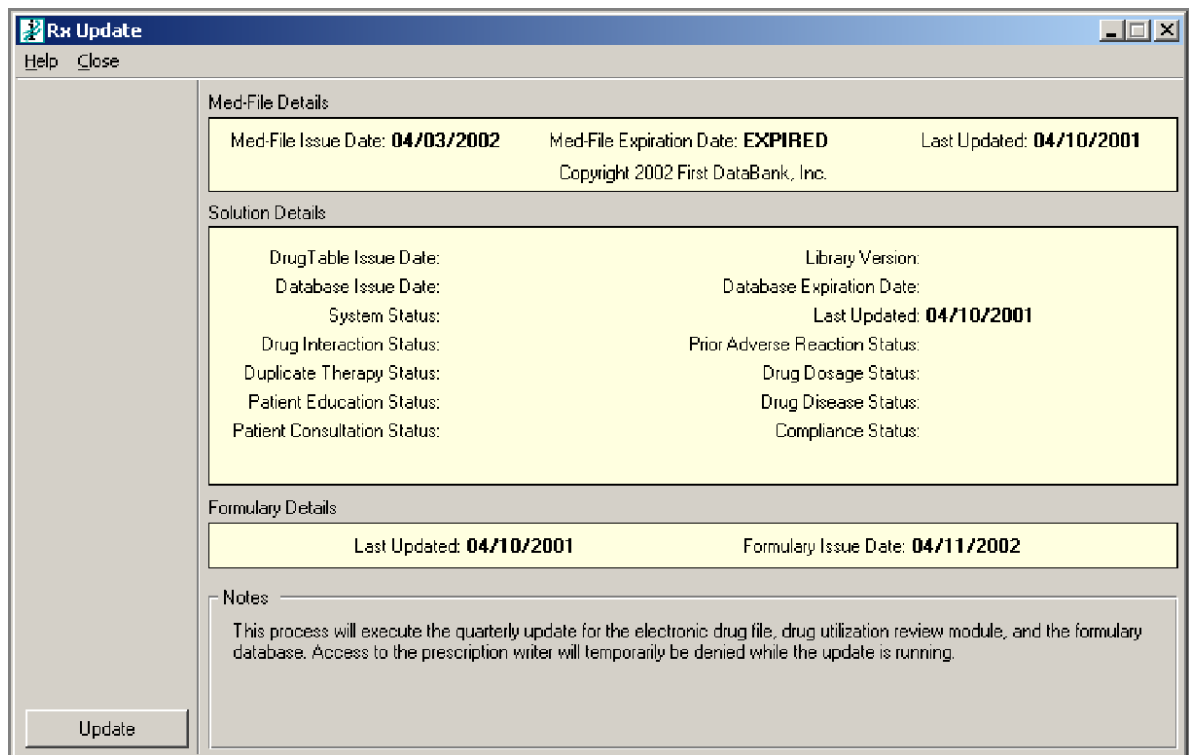
9. Once you have returned to system administration desktop, click on the Utilities menu, open the RX menu and select the Rx Update menu item.



10. Several pop-up windows will be displayed, which indicate that Rx DUR is not yet configured. These windows may be displayed even though you have previously completed successful Rx DUR updates. For each window, click on the OK button to close these windows and proceed with installation.

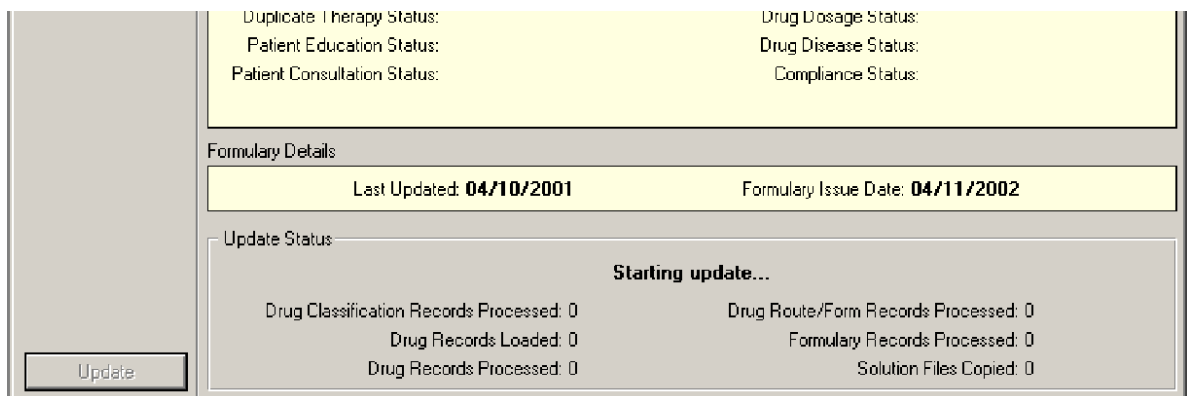


11. The RxUpdate window is displayed. Click on the Update button to proceed.



Before the update installation begins, a confirmation pop-up window may be displayed indicates which files will be changed, and provides the option of cancelling the update. Click on the OK button to continue with installation.

12. The RxUpdate window will change to include new information in the pane at the bottom. The Update Status will change to read Starting Update.



13. After a few moments, Checking for Media Corruption will be displayed in the Update Status pane.

Update	Formulary Details	
	Last Updated: 04/10/2001 Formulary Issue Date: 04/11/2002	
	Update Status	
	<p align="center">Checking for media corruption</p> <p>Drug Classification Records Processed: 0 Drug Route/Form Records Processed: 0</p> <p>Drug Records Loaded: 0 Formulary Records Processed: 0</p> <p>Drug Records Processed: 0 Solution Files Copied: 0</p>	

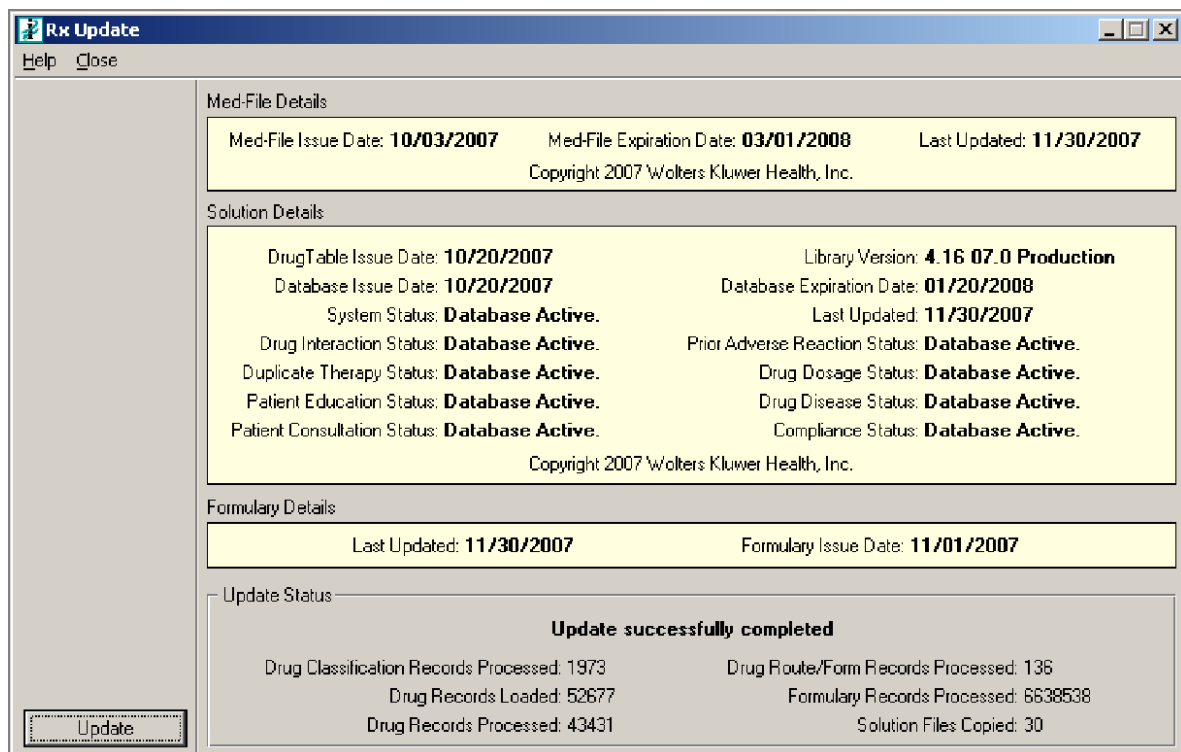
14. After a few more minutes, Loading Drugs will be displayed in the Update Status pane. Note that at this point, the number of records processed and loaded will be displayed as they increment. This part of the procedure will generally take up to four hours or more, depending on the specifications of the server.

Update	Patient Consultation Status:		Drug Records Status:	
	Compliance Status:			
	Formulary Details			
	Last Updated: 04/10/2001 Formulary Issue Date: 04/11/2002			
Update Status				
<p align="center">Loading drugs</p> <p>Drug Classification Records Processed: 1973 Drug Route/Form Records Processed: 136</p> <p>Drug Records Loaded: 20000 Formulary Records Processed: 0</p> <p>Drug Records Processed: 0 Solution Files Copied: 0</p>				

15. Updating Formulary Database will be displayed in the Update Status pane. This final part of the update procedure may take several minutes.

Update	Patient Consultation Status:		Drug Records Status:	
	Compliance Status:			
	Formulary Details			
	Last Updated: 04/10/2001 Formulary Issue Date: 04/11/2002			
Update Status				
<p align="center">Updating Formulary Database</p> <p>Drug Classification Records Processed: 1973 Drug Route/Form Records Processed: 136</p> <p>Drug Records Loaded: 52677 Formulary Records Processed: 10000</p> <p>Drug Records Processed: 43431 Solution Files Copied: 0</p>				

16. The message 'Update Successfully Completed' will be displayed in the Update Status pane when the installation ends successfully. Click on the Close menu option in the menu bar to close the window and return to the Sage Intergy System Administration Desktop.

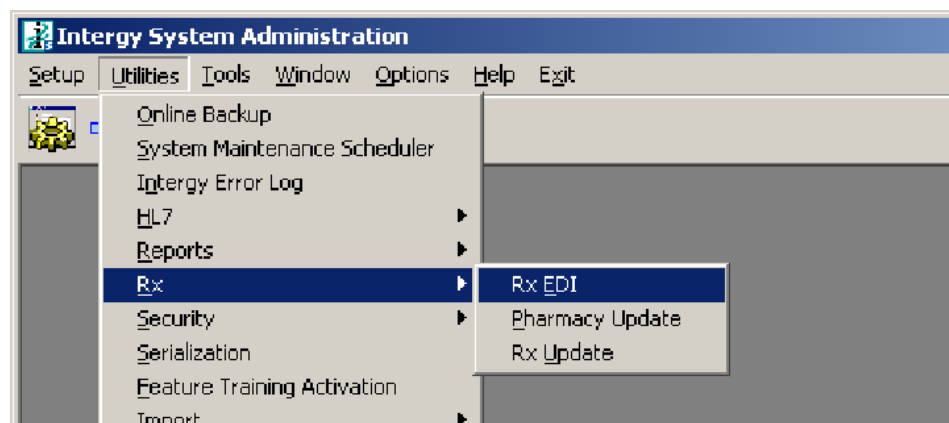


The Sage Intergy database will typically grow up to three gigabytes when installing Rx DUR for the first time. After successful installation, remove the Rx DUR data update disk from the Sage Intergy server.

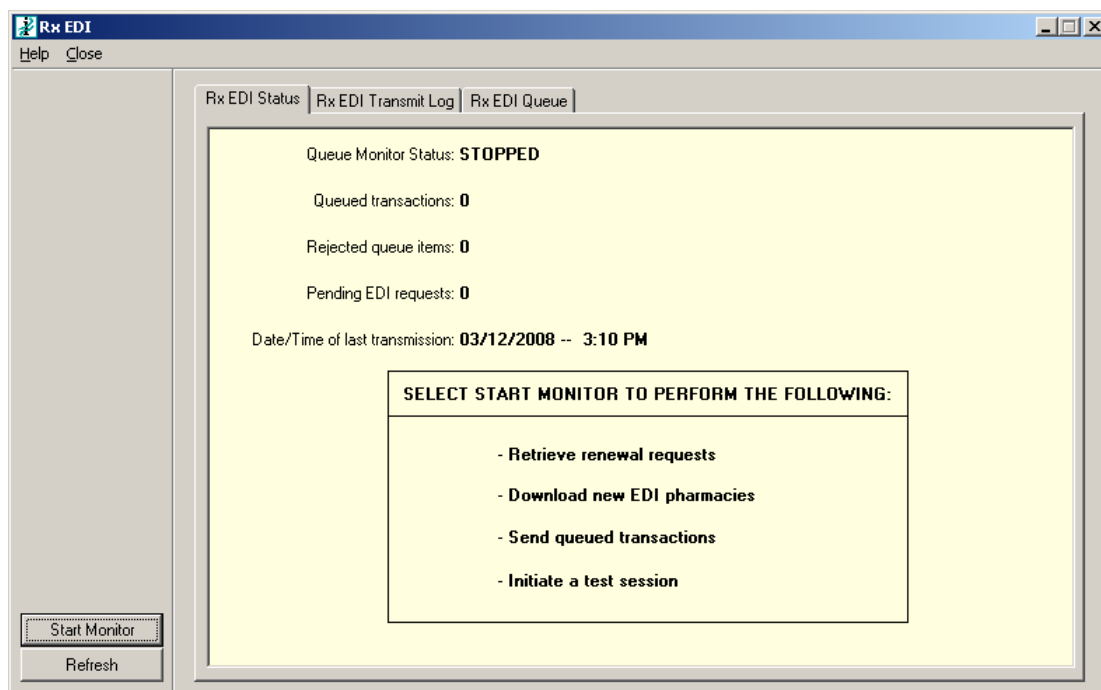
You may delete the C:\Intergy\DurLocation\rxdbsold directory after a successful installation.

Queue Monitor Restart

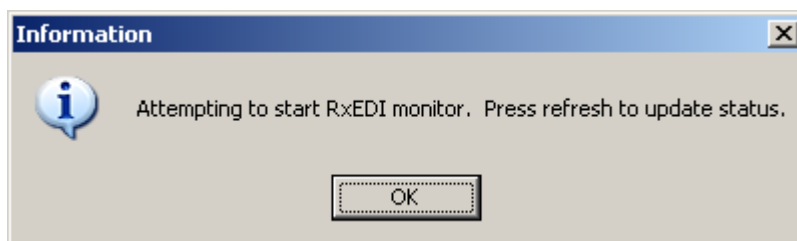
17. In the Sage Intergy System Administration desktop, click on the Utilities menu, open the RX menu and select the Rx EDI menu item.



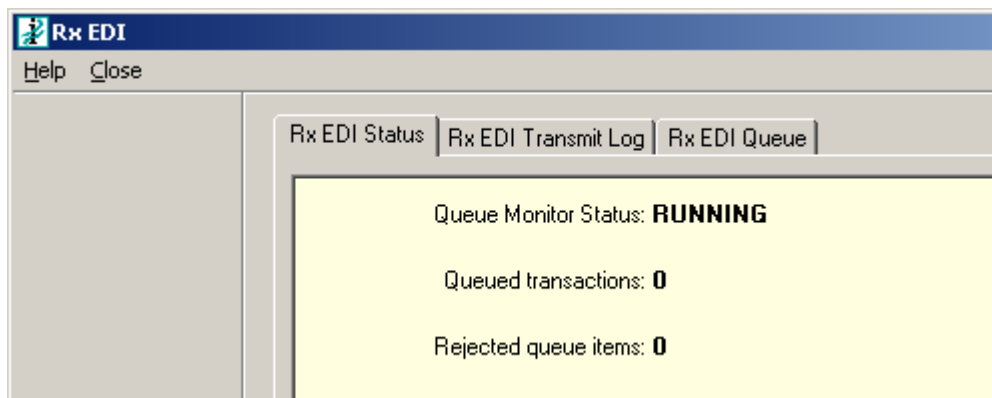
18. The Rx EDI Status window is displayed. Note that the Queue Monitor Status field indicates that the service is in a stopped state. Click on the Start Monitor button in the lower left corner to restart the Queue Monitor.



19. The Start Monitor Information dialogue window will be displayed. Click on the OK button to return to the Rx EDI Status window.

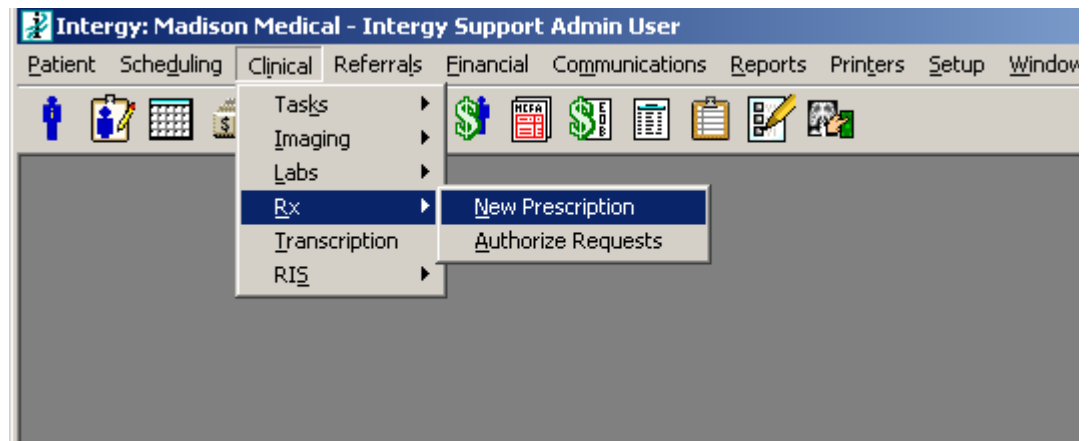


20. Click on the Refresh button to update the displayed status field. Once the running state is displayed, click on the Close menu item to close this window and return to the System Administration Desktop. Close the System Administration Desktop.



Testing the Update

To test the RxDUR installation, open the Sage Intergy Client and log on as the support user. Click on the Clinical menu, open the Rx menu and select the New Prescription menu item.



For more information on the use of prescription capabilities in Sage Intergy, refer to the Sage Intergy help file topic titled 'RXS'.

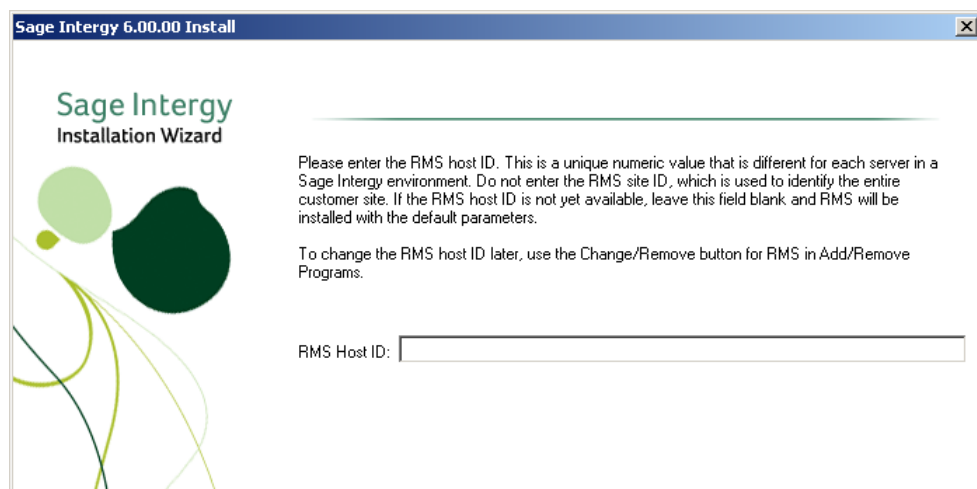
In a Windows environment, you may delete the C:\Intergy\DurLocation\rxdbsold directory after a successful test.

RMS Configuration

Remote Monitoring System is a tool with which Sage Personnel observe and record data collected from servers installed at customer sites. This section contains information specific to the use of RMS in a Sage Intergy installation or upgrade. If you require other assistance with the RMS product, please contact the rms-support@sage.net mailbox via your corporate e-mail account.

Installation of RMS

RMS is automatically installed with all Sage Intergy servers, including database servers and stand alone application servers. During installation a window will be displayed prompting you to enter the RMS Host ID.



Important note: It is necessary to distinguish between the RMS Host ID and the Site ID. Both are numeric values and may appear very similar, but they are not the same number.

The Site ID is assigned and created when serialization is purchased and a Sage Intergy license is issued. The Site ID refers generally to all the server and workstation devices located at a customer site. It is not appropriate to substitute the Site ID for the Host ID in any configuration or installation scenario.

The RMS Host ID is created only after the license is issued. The RMS Host ID refers specifically to the Sage Intergy database server only, and does not refer to any other device on the customer's network. Multiple servers in a customer site will each have their own RMS Host ID numbers assigned. The RMS Host ID may also be called the RMS Entity ID in older versions of Sage Intergy.

Host ID Lookup

All field technicians should have the Site ID before beginning the installation or upgrade process. However, the RMS Host ID may not yet be created or is otherwise unavailable to the technician. In this instance it is necessary to log on to the RMS web site and perform a search to obtain this data.

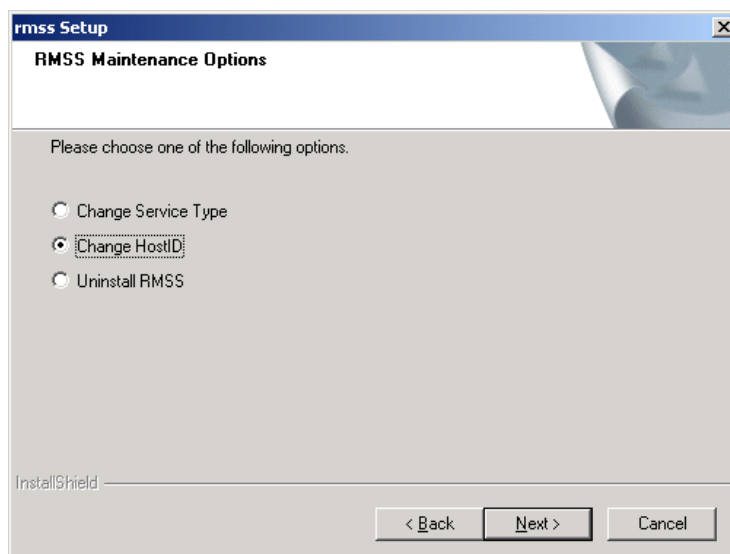
The URL for the RMS web site is <https://rms.sagehealth.com/> and requires a secure connection. Enter your logon information and click on the Login button to proceed. Note that access to RMS requires the use of an HS or MMRD corporate domain account.

Manual RMS setup

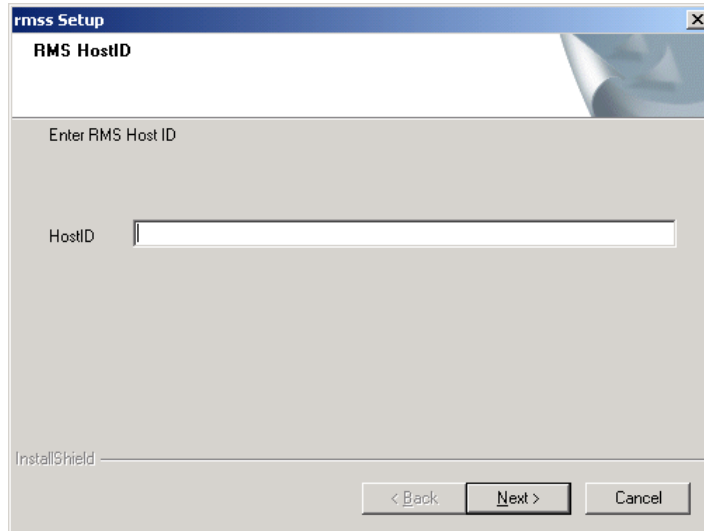
When installing RMS on the server, it is possible to leave the Host ID blank if the information is not yet available. However, once the Host ID is assigned and activated it is absolutely necessary to update it manually after installation has completed.

From the Start Menu, open the Control Panel menu and select the Add or Remove Programs icon. The Add or Remove Programs window is displayed. Note the program icon labelled 'rmss' on the list in the right pane. Highlight the rmss item and click on the Change button.

The RMS Maintenance Options window is displayed. Here you may change the service type or update the Host ID. Select the Host ID radio button and click on the Next button to proceed to the next step.



The Host ID dialogue is displayed. Enter the new Host ID number and click on the Next button to proceed to the next step.



A completion window will be displayed. Click on the Finish button to exit the RMS maintenance.

Instructions for manual RMS setup do not apply to RMS installation on workstations. RMS is installed using the Sage Intergy Primer Utility or manually from the command prompt using the `rmss.exe` executable. The Host ID on a Sage Intergy client workstation is assigned by the Sage Intergy server and is valid only for that customer's environment.

RMS Host Type Registration

For certain Sage Intergy installations, it may be necessary to change the host type that is registered when a Sage Intergy server is added to the RMS database. When you have confirmed that the Sage Intergy server is added to RMS and the customer record is up-to-date, it may be necessary to access RMS and make manual changes in order to update the host type value.

From any workstation or server in the customer environment that has Internet access, log on to the RMS website using the URL <http://rms.emdeonps.com> and access the customer record for the Sage Intergy site.

ALEXIS G. KARAGEORGE, MD (60795) Global Id: 1734567862 Monitoring Status: **Active** ☐ Show site details [Edit](#)

Application	Version	Host Name	Host Type	OS	Last Contact	
Intergy	3.50.04.03	intergyserver	Production	WINDOWS	9/9/2008 2:27:33 PM	Auto Upgrade

Errors ☐ Show history

Status	Problem	Start Date	Entity Name	SR	Duration
No Current Errors					

Intergy ☐ Show details

[Production]

System **Application** **Database** **EDI**

DISK SPACE [Run](#) [Details](#) **INTERGY VERSION** [Run](#) [Details](#)

Drive	Drive Label	Size	Free	Version	Update Time
C:\	NO VOLUME LABEL	40 GB	15 GB	3.50.04.03	05/15/2008 - 5:16 AM
D:\	New Volume	40 GB	32 GB	3.50.04	05/15/2008 - 5:14 AM
E:\	New Volume	40 GB	36 GB	3.50.03.03	05/30/2007 - 8:28 PM
F:\	New Volume	40 GB	11 GB	3.50.03	05/30/2007 - 8:27 PM
G:\	New Volume	80 GB	65 GB	3.50.00	05/30/2007 - 8:22 PM

Note the Edit link in the upper right corner. Click on this link to view all devices installed at this customer site and access configurable fields for RMS data.

ViewSiteAll - Microsoft Internet Explorer

Site [Add Host](#) [Edit](#)

Site ID	17104	Region	midwest
Site Name	ALEXIS G. KARAGEORGE, MD	MMGR Contact Person	Dr. Karageorge
External IP Address	68.222.226.2	Dynamic IP	Yes
Connection	permanent	Active	Yes
RTU	Yes	Allow Notices	Yes
Refuse Upgrade	No		
Disqualified	No		

Intergy

Intergy Host [Add App](#) [Edit](#)

Host ID	17105	Active	Yes
Host Name	intergyserver	IP Address	192.168.1.10
OS Name	WINDOWS	Last Contact	9/9/2008 2:27:33 PM
Host Type	Production		
Disqualified	No		

Intergy Application [Edit](#)

Intergy App ID	17106	Active	Yes
----------------	-------	--------	-----

At the right side of the Sage Intergy Host header, click on the Edit button to change RMS registration data for the Sage Intergy server that has been added to the database. The update host window is displayed.

Update Host	
Host name	intergyserver
IP address	192.168.1.10
Host Type	Production
Platform	Test Server
Change root password	Warm Spare (type new password)
Disqualify	<input type="checkbox"/> (confirm new password)

Save Close Delete

Note the Host Type field on the third line. Click on the drop-down button to select from a list of available host types. In most cases, a new server will be identified only as a Production server or as a Sage Intergy On Demand (IOD) server.

Tech Support Mode

In some cases, Sage technicians may need to activate a special operating mode of Sage Intergy under the direction of Sage R&D. By changing client configuration settings on the Sage Intergy database server, additional fields and installation options become available.

To activate Sage Intergy Tech Support mode, log on as the Administrator to the Sage Intergy database server. Open the Client Configuration Utility from the Start menu, or from the Sage Intergy folder on the desktop. Click on the Miscellaneous radio button to display administrative configuration settings.

Client Configuration Utility

File Utilities Close

Configuration: Intergy

☐ Database
☐ Appserver
☒ Miscellaneous

Miscellaneous Settings

Performance Tuning Settings:

Maximum Memory for Intergy: 10000 (Range 1 - 65534)
 Buffer Memory for Temp Tables: 2000 (Range 10 - 50000)
 Directory Size for Code: 200 (Range 5 - 500)
 Local Buffer Size: 1000 (Range 1 - 4,000,000k)
☒ Quick File Request
 Default Values

Advanced Settings:

☐ All Workstation Users Share Registry Settings
☐ WAN Client ☒ Run EDI on Report Server
 System Configuration Dir: C:\Intergy Browse

Support Settings:

☒ Tech Support

Configuration: New Delete Save Settings

Change the settings in the Client Configuration Utility using following parameters:

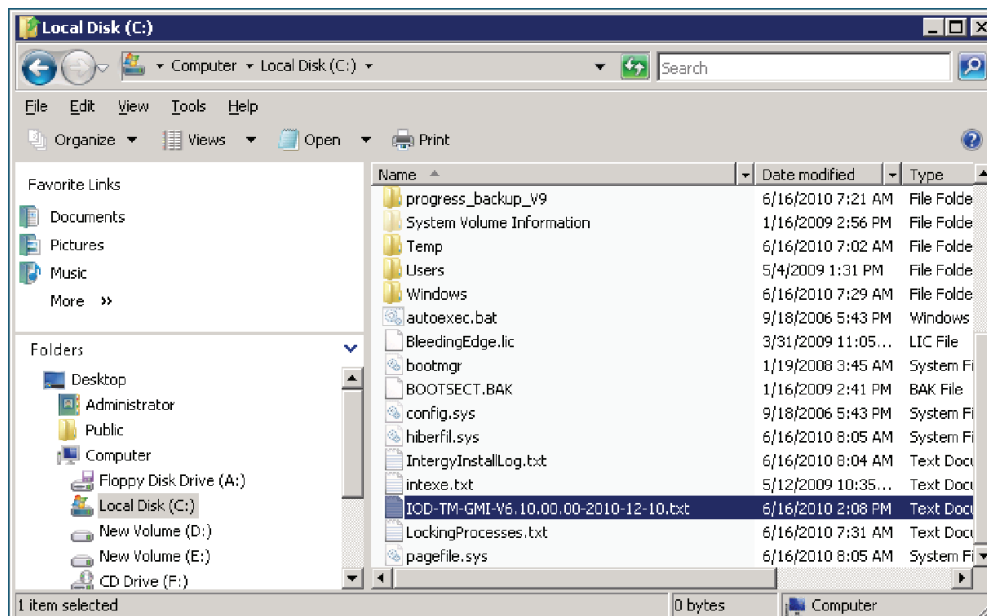
- Advanced Settings: All Workstation Users Share Registry Settings - Select this checkbox.
- Support Settings: Tech Support - Select this checkbox.

Click on the Save Settings button and then close the Client Configuration Utility. Activation occurs immediately, and no reboot is required.

Tech Support mode is intended for temporary use only to accommodate troubleshooting and maintenance action. Continuous operation of Sage Intergy in Tech Support mode is not recommended for production environments. Note the original Client Configuration Utility settings and restore this configuration after troubleshooting or maintenance has been completed.

Sage Intergy On Demand GMI Identifier

In most implementations, Sage Intergy On Demand (IOD) servers are installed from a disk image and not manually from media. When configuring or troubleshooting a Sage Intergy On Demand server, it may be necessary to identify the Gold Master Image (GMI) from which the server was created. The unique GMI Identifier string may be viewed in Windows Explorer as the name of an empty text file written to the root of the C: drive on all IOD servers.



In this example, the file name 'IOD-TM-GMI-V6.10.00.00-2010-12-10.txt' is present on the root of the C: drive. The numeric portion of the file name indicates Sage Intergy version 6.10.00.00 installed in an image created on December 10, 2010. The alphabetic portion of the file name indicates a Gold Master Image created for IOD vendor Teramark. This file name will be different for each IOD server, depending on the date of the image creation and the vendor for which the server was created.

Client Connection Configuration

Currently, Sage Intergy uses a combination of text files and registry settings to configure client connection parameters for Sage Intergy and Sage Intergy EHR. Beginning with Sage Intergy 7.00, client connection parameters are also enumerated in XML files located in the following client workstation or terminal server directory:

C:\Intergy\Config

For Sage Intergy 7.00, the 'connections.xml' file is used by specific Sage Intergy services to obtain information about the database server name, the Sage Intergy EHR connection ports and security settings, and the Sage Intergy desktop operating parameters. Application server names and settings are also listed in this file.

Note the following configuration parameters:

- **JDFInfo** - Lists parameters for Java Dispatch Framework configuration to allow Sage Intergy EHR and Sage Intergy EHR PDA connections. These parameters include the server name and the TCP ports used for connections.
- **DatabaseInfo** - Lists parameters used for standard Sage Intergy client application connections. These parameters include the server name, the TCP port used for connections and any executable arguments that are normally part of the application shortcut.
- **AppserverInfoCollection** - Lists parameters used for application server configuration. Note that each AppServer has a separate 'AppserverPartition' tag, which typically contains a unique service name and TCP port number.

In all cases, the connections.xml file should not be edited directly. The Sage Intergy Client Connection Utility should be used to make changes to client connection settings.

A typical connections.xml file used for a Sage Intergy installation with a single database server and no N-tier components is given as an example below.

```
<IntergyConfigurationCollection>
  <IntergyConfiguration ConnectionID="Intergy">
    <JDFInfo Servername="<server name>" Dataport="60001"
Proxyport="60004" Secure="True" />
    <DatabaseInfo Name="Medman" Server="<server name>"
ServerPort="intergy-db" Parameters="-cache C:\Intergy\medman.sch" />
    <AppserverInfoCollection>
      <AppserverPartition PartitionName="Intergy" PartitionType=""
AppserviceName="Intergy" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />
      <AppserverPartition PartitionName="Admin" PartitionType=""
AppserviceName="Intergy" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />
      <AppserverPartition PartitionName="Back Office"
PartitionType="" AppserviceName="Intergy" Enabled="True"
NameserverHost="<server name>" NameserverPort="5162" Parameters=""
SecureAppserver="False" ServerURL="" />
```

```

    <AppserverPartition PartitionName="Batch" PartitionType=""
AppserviceName="Intergy" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />

    <AppserverPartition PartitionName="Clinical" PartitionType=""
AppserviceName="Intergy" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />

    <AppserverPartition PartitionName="FrontDesk" PartitionType=""
AppserviceName="Intergy" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />

    <AppserverPartition PartitionName="IntergyAsync"
PartitionType="" AppserviceName="IntergyAsync" Enabled="True"
NameserverHost="<server name>" NameserverPort="5162" Parameters=""
SecureAppserver="False" ServerURL="" />

    <AppserverPartition PartitionName="IntergyRxAsync"
PartitionType="" AppserviceName="IntergyAsync" Enabled="True"
NameserverHost="<server name>" NameserverPort="5162" Parameters=""
SecureAppserver="False" ServerURL="" />

    <AppserverPartition PartitionName="Conversion" PartitionType=""
AppserviceName="Conversion" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />

    <AppserverPartition PartitionName="ConversionAsync"
PartitionType="" AppserviceName="ConversionAsync" Enabled="True"
NameserverHost="<server name>" NameserverPort="5162" Parameters=""
SecureAppserver="False" ServerURL="" />

    <AppserverPartition PartitionName="IntergyHL7" PartitionType=""
AppserviceName="IntergyHL7" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />

    <AppserverPartition PartitionName="IntergySF" PartitionType=""
AppserviceName="IntergySF" Enabled="True" NameserverHost="<server
name>" NameserverPort="5162" Parameters="" SecureAppserver="False"
ServerURL="" />

    <AppserverPartition PartitionName="ReportServer"
PartitionType="" AppserviceName="Intergy" Enabled="True"
NameserverHost="<server name>" NameserverPort="5162" Parameters=""
SecureAppserver="False" ServerURL="" />

    </AppserverInfoCollection>

</IntergyConfiguration>

</IntergyConfigurationCollection>

```

Appendix D: Sage Intergy Upgrade

When upgrading Sage Intergy customer sites from a previous version of Sage Intergy, technicians may choose to perform an automated upgrade or a manual upgrade. This section provides a detailed overview of the requirements for both types of installation, and the steps that must be completed to upgrade clients and servers to Sage Intergy 7.00.

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Windows Sage Intergy Server Upgrade

An established customer site with an existing Sage Intergy installation on Windows servers may be upgraded to the current application version. The current version of Sage Intergy automates many upgrade processes, so that installation and reboots may occur during off-hours or during a scheduled time. The Sage Intergy Primer Utility that prepares a customer site for an upgrade is also included on the latest Sage Intergy installation media.

Windows 2008 and Windows 2003 servers are supported for Sage Intergy upgrades. All client workstations must have Windows XP Service Pack 3, Windows Vista or Windows 7 installed as a minimum requirement. Please consult the current Sage Intergy System Requirements document for more information on supported platforms.

These instructions assume you are logged on as the local administrator. Instructions for manual upgrades apply for all Sage Intergy servers, including the main database server, as well as any stand alone application servers in an N-tier environment. Instructions for automated upgrades apply only to customer sites where the primary Sage Intergy database server is also the only application server. Refer to the N-tier Sage Intergy Server Upgrade section beginning on page 15-15 if you need specific instructions on manual upgrade of a report server or any stand alone application servers.

Windows 2008, Windows 7 and Windows Vista Screen Updates

When applying the Sage Intergy 7.00 upgrade to Windows Server 2008, Windows 7 and Windows Vista devices, many installation progress windows may not be displayed by default. A prompt will be displayed above the start bar that will indicate a window has been hidden and may be viewed. For a manual update, click on the appropriate buttons as necessary to view upgrade windows and respond to prompts.

Automated Upgrade

If automated upgrade procedures are to be implemented at the customer site, two manual installation steps must be completed ahead of time. When upgrading from Sage Intergy 3.50 or older, the Sage Intergy Primer utility should be installed first on all installed devices, and the AdminService Authentication Utility should be executed on the primary Sage Intergy database server.

Sage Intergy Primer

The Sage Intergy Primer utility performs the following functions:

- Installs Windows Installer
- Installs the RMS client
- Checks the version of Sage Intergy and logs upgrade eligibility

The Sage Intergy Primer utility should be executed on the main Sage Intergy application server, all Sage Intergy clients workstations and any other server device which may be running an n-tier or stand alone component. The primer is not required for manual upgrades or for environments where Sage Intergy 4.00 or higher is already installed.

Some versions of Sage Intergy may not be automatically upgraded to the latest version until specific Hotfixes are installed. Please refer to the Sage Intergy Primer Utility documentation for more information.

AdminService Authentication Utility

The AdminService Authentication Utility performs the following functions:

- Collects information about Progress Database security
- Prompts the installer for logon information if the Local System account is not used to run the Progress Administrative Service
- Stores authentication information in an encrypted file for use by the installation program during the automated upgrade

The technician executing the utility will be prompted to enter the logon name and password used in Sage Intergy environments where different credentials are required for authentication across multiple servers, as in an n-tier environment. You may be required to obtain this information from the customer or from the local technical support personnel. Please refer to the AdminService Authentication Utility documentation for more information.

N-tier and Report Server upgrades

Some servers in large Sage Intergy environments will not be upgraded as part of the automated procedure. This includes report servers in all environments, and stand alone application servers that are part of N-tier environments. Refer to the N-tier Sage Intergy Server Upgrade section of this appendix beginning on page 13-15.

Upgrade Preparation

After upgrade eligibility has been validated and all required third-party components are installed, the upgrade may be performed manually during off-hours or at a scheduled time. If RMS is correctly configured, upgrade components may be automatically distributed via network by the Sage RMS support team. The Sage Intergy Primer should be successfully executed on all Sage Intergy devices if you plan to automate client upgrades. To prepare for a successful upgrade to the newest version of Sage Intergy, the following steps must be completed first:

- Sage Intergy placed in maintenance mode
- HL7 processes are shut down manually
- Database backup is completed
- Administrative Service security settings recorded

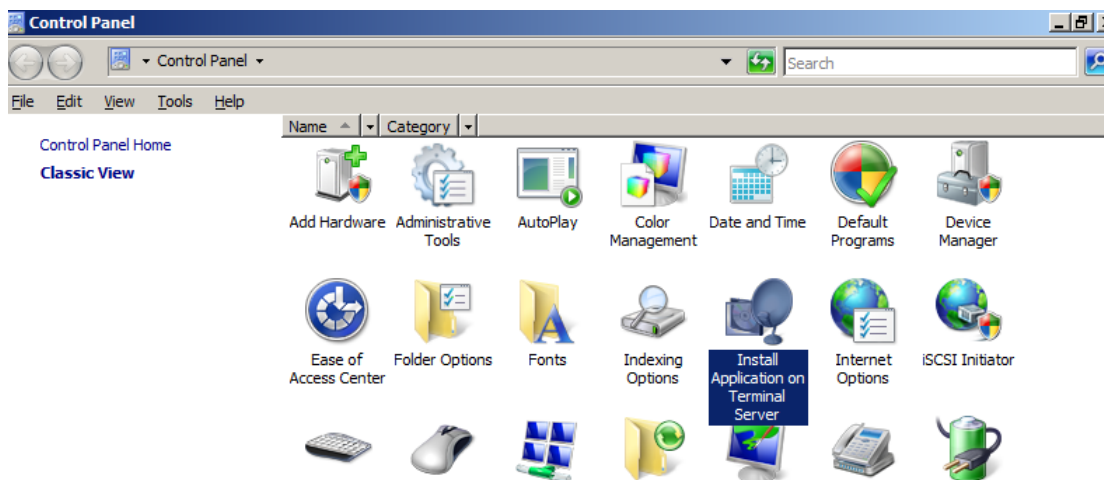
Refer to the Sage Intergy Technical Process Reference in Appendix C for details on how to perform the first three maintenance functions. When recording the Administrative Service security settings, make sure that both the user name and the password are recorded. Note that in some customer environments, this account may be a domain account that is maintained by the customer's I/T organization.

Upgrading Windows Sage Intergy Servers

Use the following procedure to complete a successful upgrade of any Windows server where the Sage Intergy database or applications are installed.

1. Insert the Sage Intergy installation media disk into the server to be upgraded. You may also copy the contents of the DVD to a shared folder for installation without moving the media to each separate server. The preferred name for this shared folder is \\IntergyServer\IntergyCD. In either case, run the default setup executable.

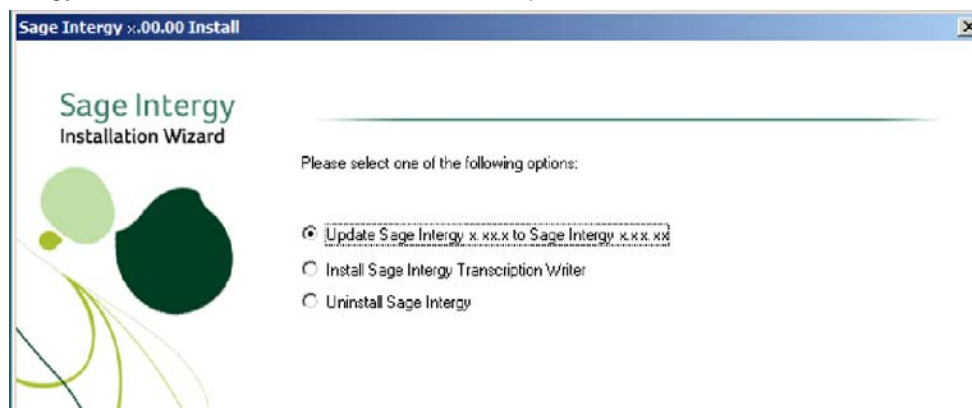
Note that you may be required to use Install Mode for Sage Intergy database servers that are also configured with Terminal Services for client connectivity. Open the Install Application on Terminal Server control panel and use this dialogue to run the default setup executable, instead of clicking on the file manually.



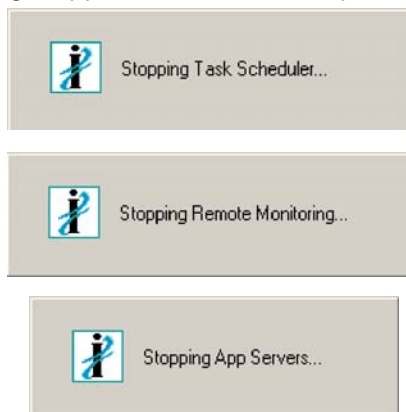
Refer to Chapter 9 for detailed information on the installation of applications for Terminal Services client connectivity.

Select Setup Option

2. The Setup Option window is displayed. Select 'Upgrade Sage Intergy X.XX to Sage Intergy 7.00' and click on the Next button to proceed.

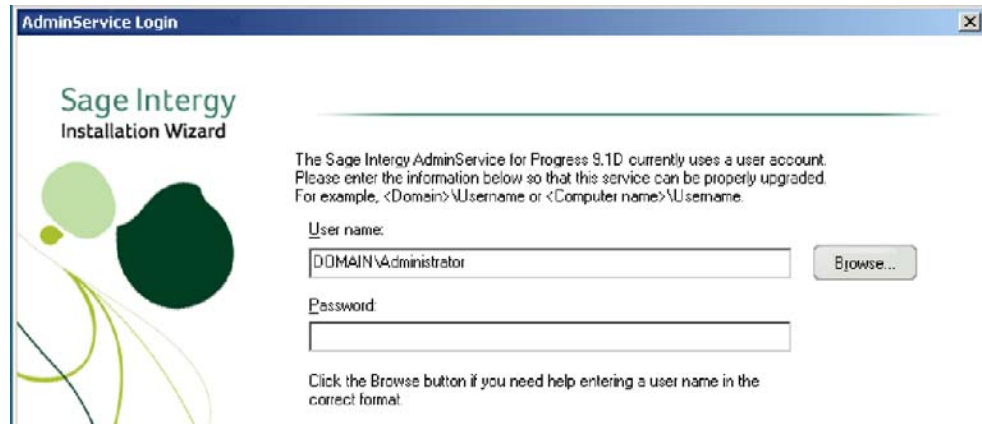


3. The installation procedure will display status messages indicating that various Sage Intergy functions are being stopped. This is a normal process.



Set Sage Intergy Admin Service Logon When Upgrading from Sage Intergy 3.50 or Older

- If you are upgrading from Sage Intergy 3.50 or earlier and the Sage Intergy Administrative Service uses a logon account, the AdminService Login prompt window will be displayed.



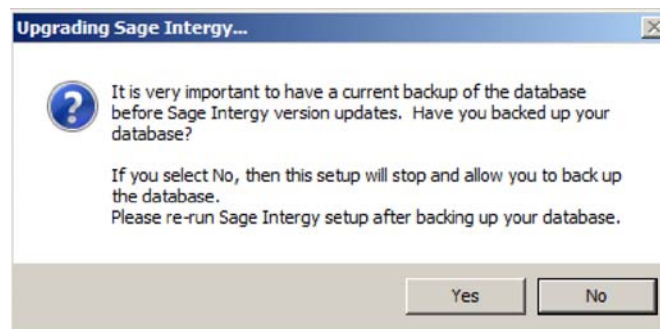
This window is displayed because the Sage Intergy AdminService for Progress 9.1D does not use the Local System account. The User Name field will be automatically populated with the logon name used to run the Administrative Service. Check with the customer or the local technical support representative to obtain the logon information that is required for this account.

If a different account is required to run the service, click on the Browse button to open a Users and Groups window and select a different account.

Enter the password for the logon account and click on the Next button to validate the logon information. You will not be able to proceed to the next installation step until valid logon information is entered.

Respond to Backup Question Prompt

- The Backup Question Prompt window will be displayed, asking if you wish to perform a backup before proceeding with the upgrade. If the backup you performed was successful, click on the Yes button to indicate that you are ready to proceed with the upgrade.

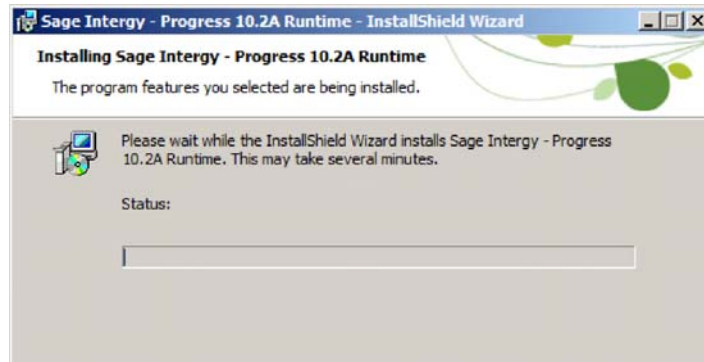
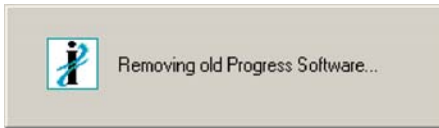


- The Log File Archival status message is displayed. This message may be displayed for several minutes, depending on the size of the Sage Intergy implementation.

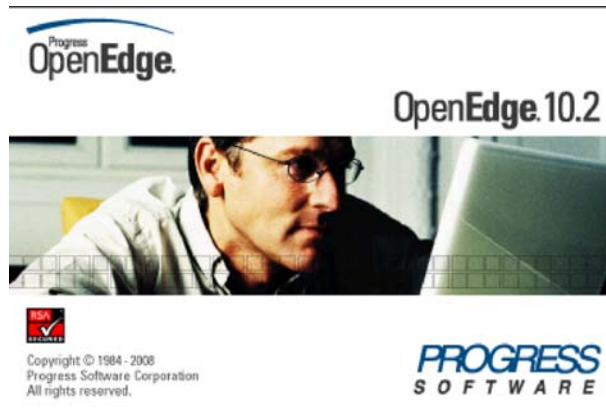


Progress Application Component Installation

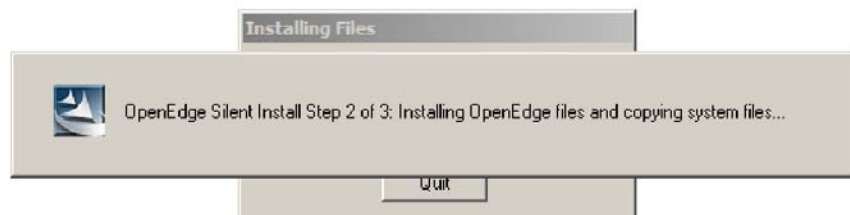
7. The Removing Old Progress Software status message will be displayed. After a few minutes the Progress Software installation wizard window is displayed.



8. After a few minutes, several new windows will be displayed as the Progress OpenEdge installation process begins.



The installation status window will change as installation progresses. Note that there is an interactive button displayed underneath the status window.



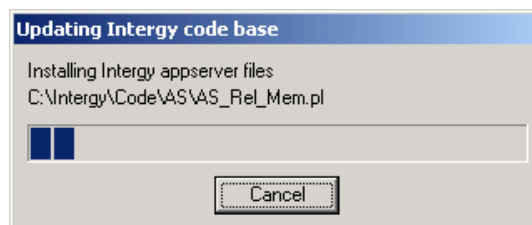
This button is part of the native Progress Installshield package. **Do not under any circumstances click on any button marked Cancel or Quit.** This is not an appropriate method to abort the installation. Interrupting the Progress installation in this fashion will invalidate the Sage Intergy server installation and force a rebuild of the operating system

and all installed components. Always allow the Progress installation package to complete before taking any action against the server, and warn any customer representatives or technical support personnel of this issue as necessary.

9. For most installations, the windows that were displayed in step 8 will appear to be repeated. This may occur if additional Progress OpenEdge service packs or other software updates must be installed. Further installation of Progress OpenEdge application components is not interactive and does not require interactive input from the installing technician. As with the previous step, do not click on any button marked Cancel or Quit that is displayed during installation.
10. A series of installation status messages will be displayed as Progress installation completes.



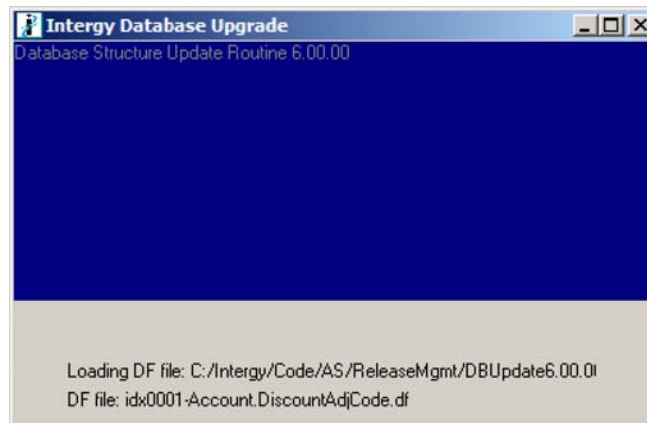
11. When the previous steps have completed, files from the current version will be copied to the server. Do not hit the Cancel button.



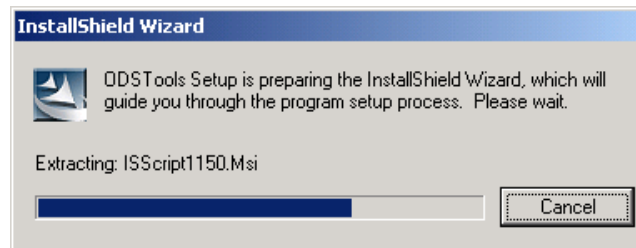
12. When file copying has completed, several command windows will appear as the Sage Intergy installation process runs scripts to configure the Sage Intergy database. A new status window may also be displayed briefly. This is a normal operation.



13. The Sage Intergy Database Upgrade status window is displayed. The text displayed will change as the database schema is extended and modified.

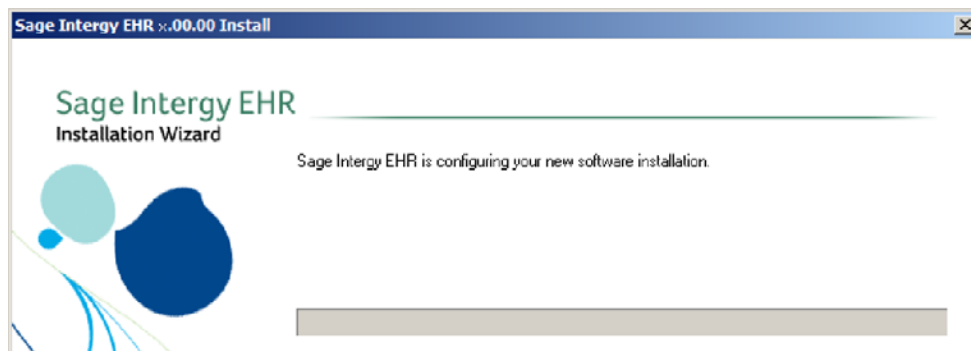


14. The ODSTools setup window related to the Medcin Sage Intergy component will be displayed. At the end of this process, the Medcin configuration window will be displayed very briefly. No input is required at this point, and the window will close by itself.



Other Component Installation Upgrade

15. If EHR is installed, it will also be upgraded. During this process, you may observe that an Emdeon logo appears in some of the installation windows. This may occur for upgrades from Sage Intergy versions 4.00 and older because the Installshield routine is running the EHR uninstallation package which is already installed on the server. The appearance of the Emdeon-branded windows is normal and is an expected occurrence. Do not click on the Cancel button during this process. When a successful upgrade is in process, the new installation splash screen with the current branding will be displayed.



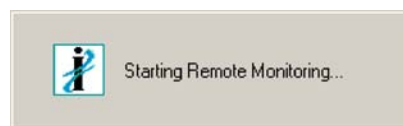
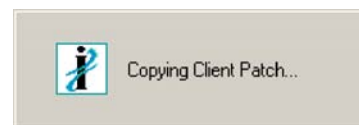
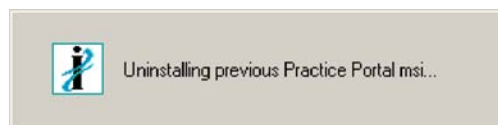
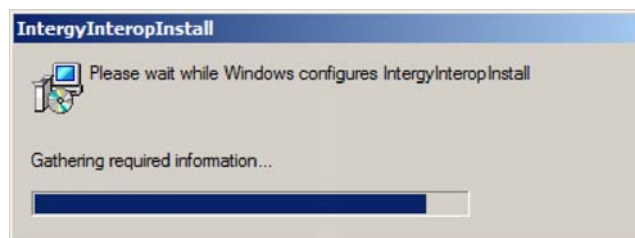
This is also true of the Imaging software, if it is present to be installed. Emdeon brands and logos may appear on screen during the upgrade. When a successful upgrade is in

progress, the new Sage Intergy Storage Server splash screen with the current installation will be displayed. Again, do not cancel the installation and allow it to proceed.

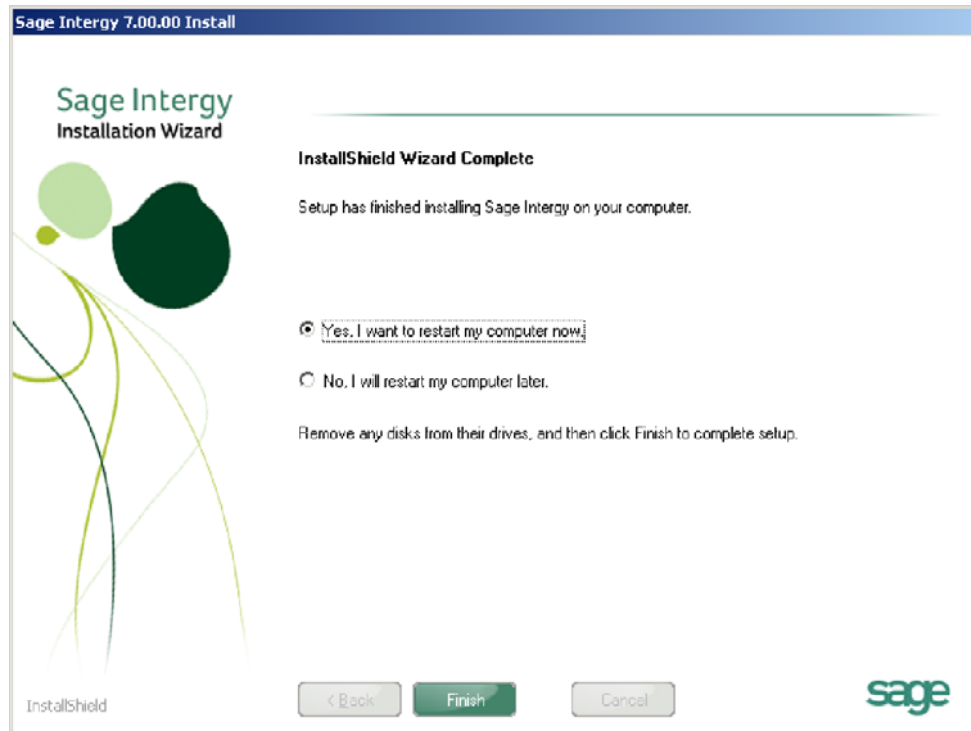


Upgrade Completion

- 16.** Another series of status message will be displayed, depending on the components which are already installed. You may observe messages relating to Sage Intergy Interop, Practice Portal, and the updating of client components. Status messages indicating that services are being started will be displayed as the installation process nears completion.



17. When complete, the Sage Intergy Update confirmation window appears, asking you to reboot.



Click on the Finish button and allow the server to reboot. If the Sage Intergy database server is configured as a Terminal Server, the reboot will also end install mode and place the server in normal operation mode again.

Check Database and Windows Logs after Reboot

18. After the reboot has completed successfully, log on to the database server as the local administrator. Open the Database Administration window and ensure that the Progress database is started successfully. Check the Windows logs for any Application or System errors which may have occurred during the upgrade, and start the local copy of Sage Intergy using the Support account. Once the upgrade of the primary database server is complete, apply the same procedure to any stand alone servers and clients as necessary.

Note also that in N-tier environments, the Progress Name Server Load Balancing component must be upgraded in a separate step if upgrading from Sage Intergy 3.50 or earlier. This step must be completed after the database server has been upgraded. Follow the instructions described in the N-tier Installation instructions in Chapter 4 to complete this process for an upgraded Sage Intergy environment.

Take Sage Intergy out of Maintenance Mode

19. When the upgrade is complete and verified, take the Sage Intergy Database Server out of maintenance mode. Refer to the Sage Intergy Technical Process Reference in Appendix C for details on how to perform this maintenance function.

Serialization and Licensing

When upgrading from an earlier version of Sage Intergy, or when adding new capabilities and features not available in previous versions, a new serialization file may be required. Refer to

the Sage Intergy Technical Process Reference in Appendix C for detailed instructions on applying a new serialization.

Existing Client Upgrade

Workstations which are already running a previous version of the Sage Intergy client components may be upgraded to the new version manually with media, or automatically using the RMS client functions. This applies to Windows XP, Windows Vista and Windows 7 workstations, and Windows workstations operating as DDS or TMS servers. However, devices operating as stand alone application servers in N-tier environments must be upgraded using the process described on page 13-15 and may not use the client upgrade process.

Windows 2008, Windows 7 and Windows Vista Screen Updates

When applying the Sage Intergy 7.00 upgrade to Windows Vista or Windows 7 devices, many installation progress windows may not be displayed by default. A prompt will be displayed above the start bar that will indicate a window has been hidden and may be viewed. For a manual update, click on the appropriate buttons as necessary to view upgrade windows and respond to prompts.

Transcription Writer and Document Delivery Service

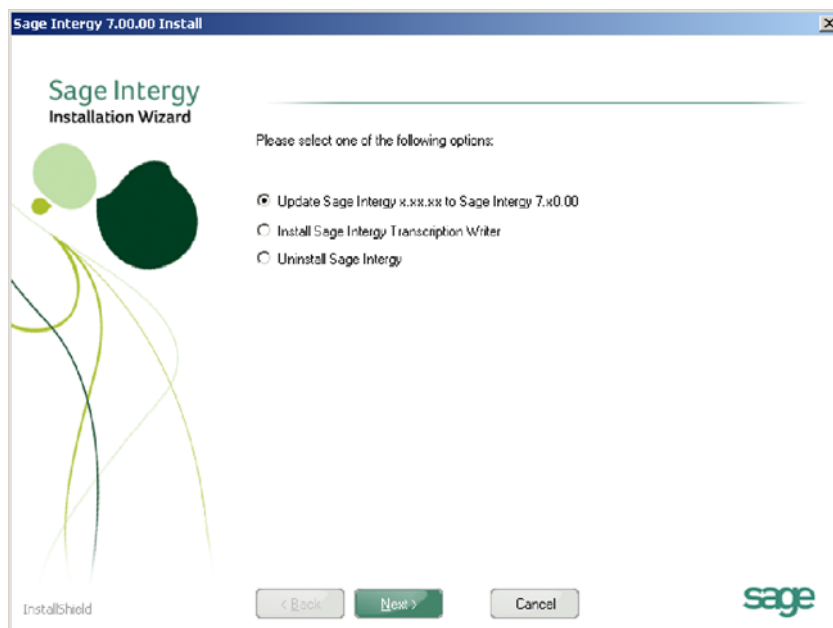
Before upgrading any client workstations to Sage Intergy 7.00, determine if the customer needs Transcription Writer or Document Delivery Service installed. Microsoft Word must be installed on each workstation or server where these components are in use. For detailed information on the installation of Microsoft Word, refer to the Microsoft Office Resource Kit page at <http://office.microsoft.com/en-us/ork2003/CH011480631033.aspx>

Manual Upgrade

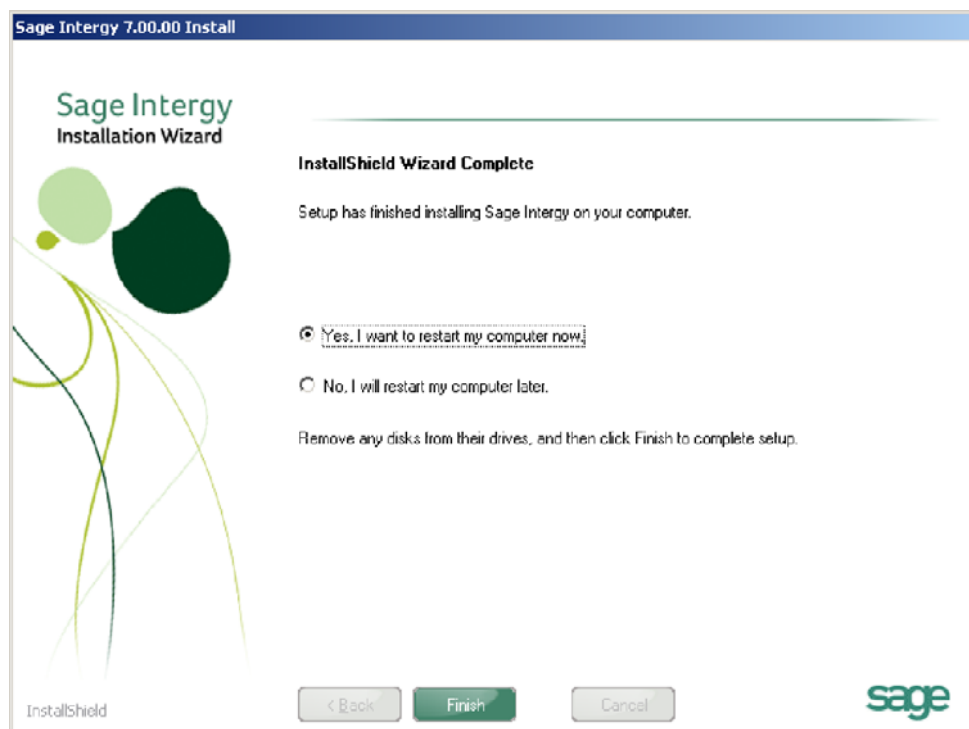
Sage Intergy clients may be upgraded using DVD media or using a networked file share. The installation steps are identical in both cases. When using a networked file share, it is recommended that no more than five simultaneous client connections be made at any one time to minimize network utilization during the upgrade process. The preferred name for this shared folder is \\IntergyServer\\IntergyCD. Refer to the installation steps described on page 13-3 for additional information.

1. Using either the DVD media or the networked share, run the setup.exe executable at the root of the install media from the workstation to be upgraded. The setup options window

will be displayed. Select the 'Upgrade Sage Intergy X.XX to Sage Intergy 7.00' option and select Next to continue.

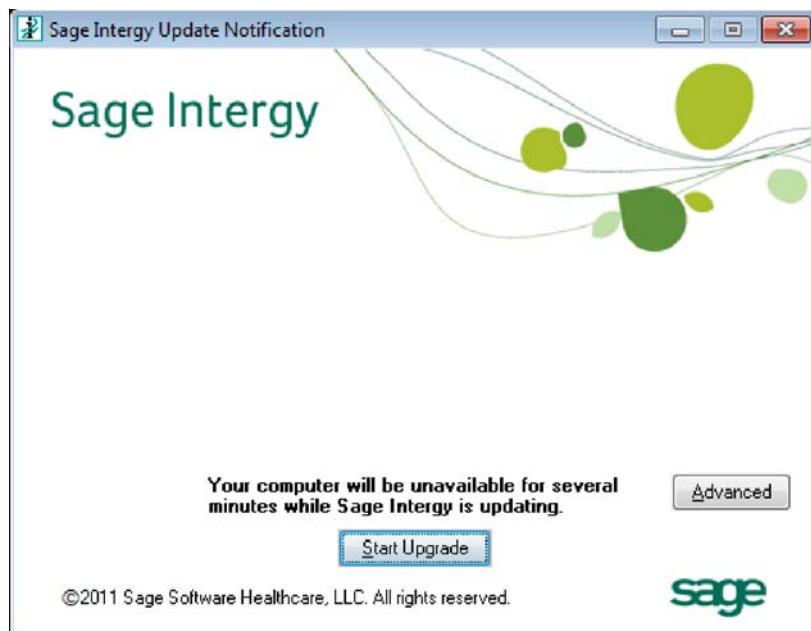


2. Several notification screens will be displayed. During the manual upgrade process, the Sage Intergy client upgrade will proceed with no prompts. If the Sage Intergy EHR client is installed, it will be detected and a separate upgrade wizard will be started automatically.
3. Upon completion of the manual upgrade process, a notification window will be displayed. In some cases, you may also be prompted to reboot the workstation. Make sure that the workstation is rebooted before the Sage Intergy desktop or the Sage Intergy EHR client is used for the first time after the upgrade process.



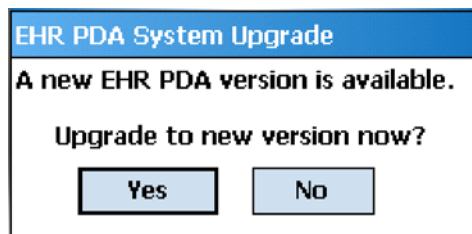
Automatic Upgrade

If the Sage Intergy Primer is been run on the workstation and the Sage Intergy database server has already been upgraded to version 7.00, the RMS client is already installed and configured correctly to receive an automated upgrade. When prerequisite conditions are met, clicking on the Sage Intergy icon on the client workstation will display the Upgrade Notification window. To upgrade the workstation, click on the Start Upgrade button. This upgrade procedure is automatic and is not interactive. Note that the Emdeon logo may be displayed when upgrading Sage Intergy 3.50 or older.



EHR PDA Upgrade

Automatic upgrade of existing EHR PDA devices is similar to the automatic upgrade of desktop client workstations. After the Sage Intergy database server has already been upgraded to version 7.00, tap on the EHR PDA icon on the handheld computing device and log on normally. An upgrade prompt will be displayed.



Tap on the Yes button to the proceed with upgrade. Refer to the instructions in chapter 3 if you need to install EHR PDA on new devices.

N-tier Sage Intergy Server Upgrade

Some servers in large Sage Intergy environments will not be upgraded as part of the automated procedure. This includes report servers in all environments, and stand alone application servers that are part of N-tier environments. These servers should always be upgraded using CD media, or from a network share that contains all the files included on the CD media.

Do not use the automatic Sage Intergy client upgrade function to upgrade the report server or stand alone application servers. This function will upgrade only the client components and will not include server components.

Note also that in N-tier environments, if upgrading from Sage Intergy version 3.50 or older the Progress Name Server Load Balancing component must be upgraded in a separate step after the database server has been upgraded. Follow the instructions on pages 4-3 through 4-7 in the Application Installation chapter to complete this process for an upgraded Sage Intergy environment.

N-tier Upgrade Procedure

In an N-tier environment, data corruption may occur if different versions of Sage Intergy are operating at the same time. Therefore, it is necessary to shut down all other application servers while the database server is upgraded. Stand alone application servers are then upgraded one at a time, from CD media or from a network share. These steps apply to major releases, service packs and hotfixes:

1. Shut down all stand alone application servers, including report servers. Make sure that the only server in operation is the primary Sage Intergy database server.
2. Proceed with the upgrade of the primary Sage Intergy database server as described on pages 13-2 through 13-10. When this upgrade is complete, reboot the server but do not end maintenance mode.
3. Power on one stand alone application server. Using DVD media or a network share containing all CD media files, upgrade the stand alone application server using the process described on pages 13-2 through 13-10. Reboot the server at the end of the upgrade process.
4. View the contents of the C:\Intergy\Downloads\Upgrade directory on the stand alone application server that has just been upgraded. Verify that the folders and files in this directory match the C:\Intergy\Downloads\Upgrade directory on the primary Sage Intergy database server. If necessary, manually copy the folders and files from the primary Sage Intergy database server to the stand alone application server. Note that this directory may be located on a different drive in a non-standard Sage Intergy implementation.
5. Power on another stand alone application server and repeat the steps 3 and 4 of the manual upgrade process. Do not attempt to upgrade more than one stand alone application server at a time, and do not proceed to the next server until the current server has finished rebooting.
6. When all Sage Intergy servers are successfully upgraded, move the primary Sage Intergy database server out of maintenance mode and proceed with Sage Intergy client upgrade as described in the Existing Client Upgrade section beginning on page 13-10.

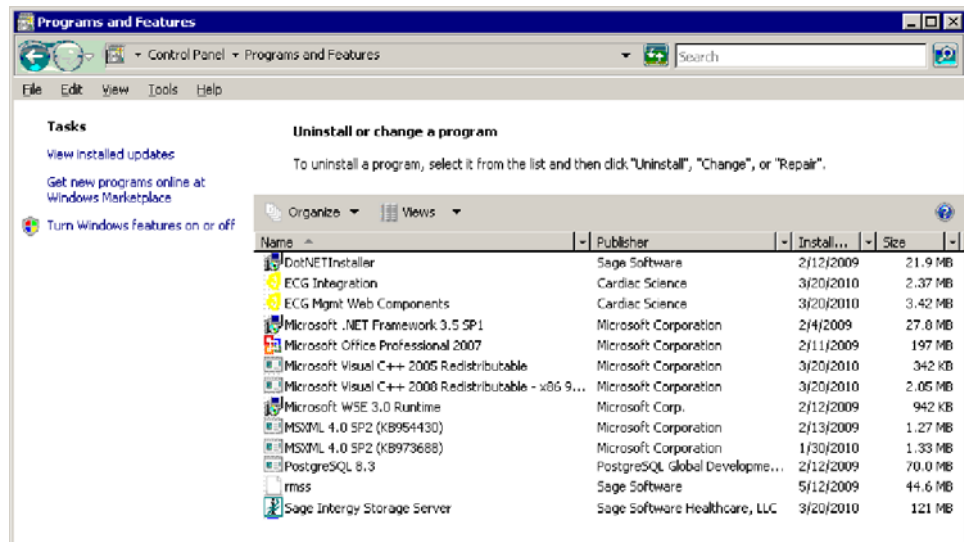
Stand Alone Sage Intergy Storage Server Upgrade

Some implementations of Sage Intergy Storage Server (ISS) are installed on hardware that is separate from the Sage Intergy database server. This scenario occurs most often for customer sites that have replaced an existing FileX imaging server. Stand alone ISS servers are not upgraded automatically when the Sage Intergy database server is upgraded to version 7.00.

As a best practice, ensure that a full backup of the stand alone ISS server has been completed before attempting an upgrade. Perform the upgrade of the stand alone ISS server during a scheduled downtime interval when client connections are not active. Make sure all client operation of Sage Intergy and Sage Intergy EHR has ceased during the upgrade process.

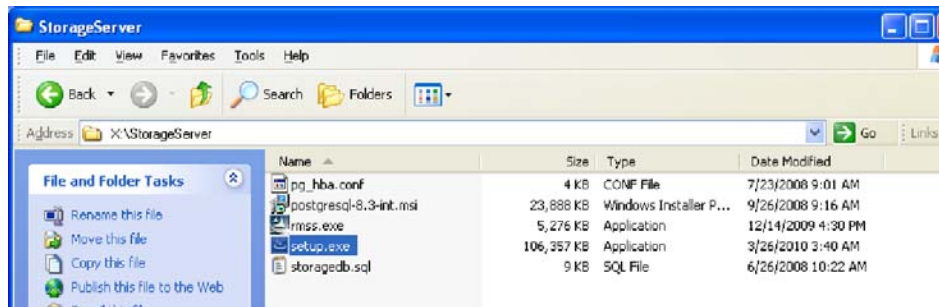
Upgrading a stand alone ISS server is a manual process that requires several steps. Use the following steps to manually upgrade a stand alone Sage Intergy Storage Server.

1. Log on to the stand alone ISS server, using the local administrator account. Using the search function of Windows Explorer, locate the ISS_Backup_V2.bat script and the license file used to authorize EHR PDA client connections. Copy these files to another server or to a removable storage device to create a temporary backup.
2. Open the Windows Control Panel used to manage installed applications. For Windows Server 2003, this is the Add/Remove Programs control panel. For Windows Server 2008, this is the Programs and Features control panel. A list of installed applications will be displayed in the control panel list pane.



Select the 'Sage Intergy Storage Server' item to be uninstalled. Respond to the Installshield Wizard prompt windows as necessary to complete the manual removal of Sage Intergy Storage Server from the stand alone hardware.

3. Insert the Sage Intergy 7.00 installation media, or connect to the shared folder used to install the Sage Intergy database server. Browse to the X:\StorageServer folder on this media and locate the Setup.exe file located in this directory.



4. To execute the new installation, open the Windows command prompt and execute the Setup.exe from this directory using the following arguments:

```
setup.exe /v "INSTALLDIR="C:\Program Files\xxxx"
```

Substitute the full path of the original directory where Sage Intergy Storage Server was originally installed. Do not attempt to install to a different directory when upgrading an existing stand alone ISS server. Note the use of nested double quotes in this command.

5. ISS installation proceeds automatically. No interaction is required. After installation of the new version has completed, restore the ISS_Backup_V2.bat file and the license file to their original locations from the temporary backup location created in step 2.
6. If necessary, reapply ISS licensing and schedule a new automated backup job. Verify that EHR PDA licenses are correctly applied, and that a scheduled backup operates normally.

You have completed a successful manual upgrade of a stand alone Sage Intergy Storage Server device. Verify the correct operation of the imaging functions of Sage Intergy and Sage Intergy EHR clients after all other upgrade procedures have been completed.

Appendix E: Laboratory Information System Installation

The Lab Information Server (LIS) service supports the transmission of clinical data to a laboratory server that is installed at the customer site. This service is usually implemented in Sage Intergy environments that already include comprehensive or specialized laboratory services.

This section describes the installation of the LIS service on the primary Sage Intergy database server, or on a separate application server. Installation of third-party laboratory systems and software is not described in this appendix. Read these instructions carefully, as the installation of the LIS service has changed significantly from previous versions of Sage Intergy.

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Sage Intergy server installation steps	16-2
Sage Intergy Services selection	16-2
Service Verification	16-3
Sage Intergy System Configuration	16-3
Next Steps	16-4

Overview

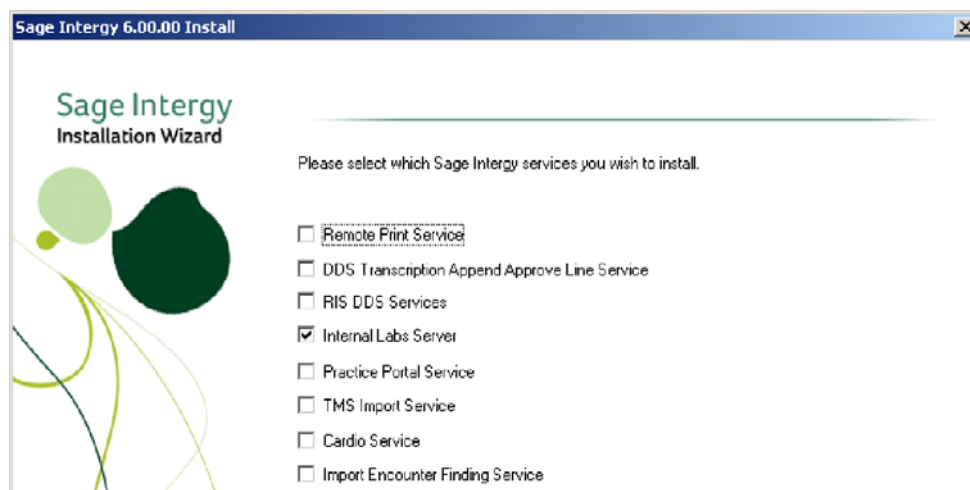
The Lab Information Server (LIS) service supports the transmission of clinical data to a laboratory server that is installed at the customer site. For smaller medical practices, laboratory services are usually provided by a third party, such as LabCorp. When laboratory services are provided by a third party in this manner, the LIS service does not need to be installed. However, larger Sage Intergy sites may have access to their own laboratory services, either on-site or in another office location. Installing the LIS service allows Sage Intergy customers to transmit laboratory requests and results to and from the Sage Intergy system when using their own laboratory system.

In a typical installation, the LIS service is installed on the primary Sage Intergy database server or another application server. The LIS Service is now installed as a standard Windows service, and may be started and stopped using normal Windows administration tools. A separate logon account and persistent desktop session are no longer required for operation of the LIS service.

Sage Intergy server installation steps

Sage Intergy Services selection

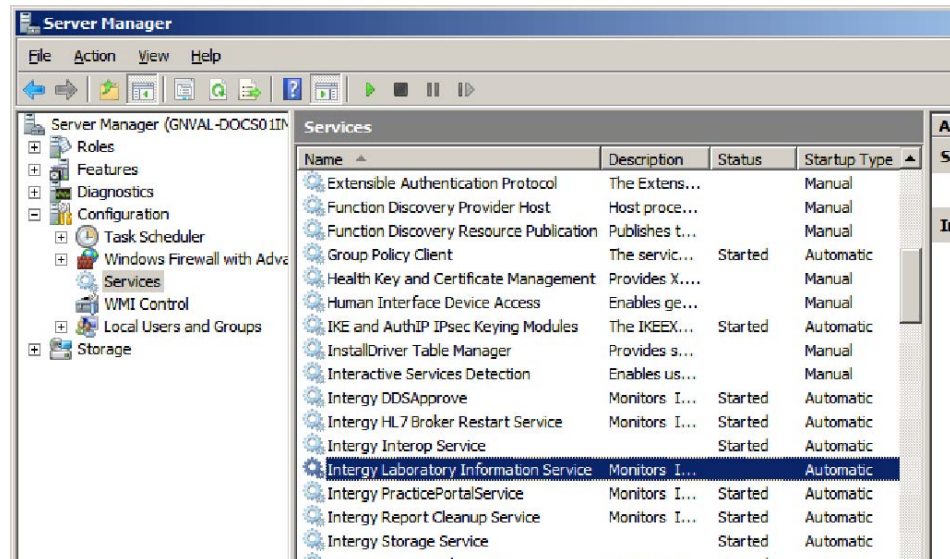
For new implementations of Sage Intergy, the LIS service is selected from the Sage Intergy Services installation window during initial installation of the database server. Select the 'Internal Labs Server' checkbox to install the LIS service.



When upgrading to Sage Intergy 7.00, or when adding the LIS service to an existing Sage Intergy 7.00 server, you will use the 'IntergyLISSvc.bat' installation script to install the LIS service. In a typical Sage Intergy installation, this installation script is found in the C:\Intergy\Code\Shared\Support\NTServices directory. Execute this file from the command line, or open Windows Explorer and browse to this location and double-click on the 'IntergyLISSvc.bat' file.

Service Verification

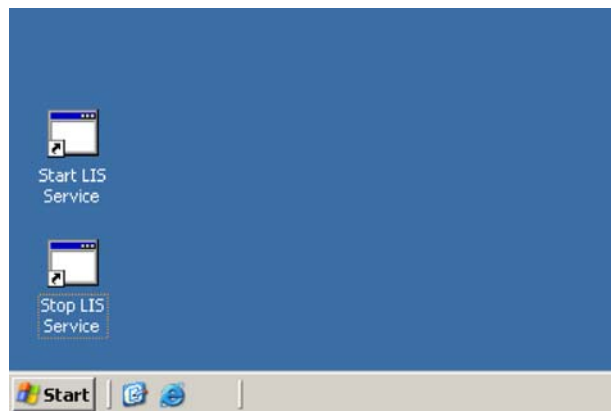
After successful installation of the LIS service on the Sage Intergy database server or application server, it may be necessary to verify that the service is appropriately configured. Open the Windows server manager console and view the list of installed services.



Verify that the Intergy Laboratory Information Service item in the list is set to automatically start. The status of the LIS service may also be viewed in the Sage Intergy Services Manager. Refer to Appendix C for more information on the operation and usage of the Sage Intergy Services Manager window.

Upgrade Maintenance

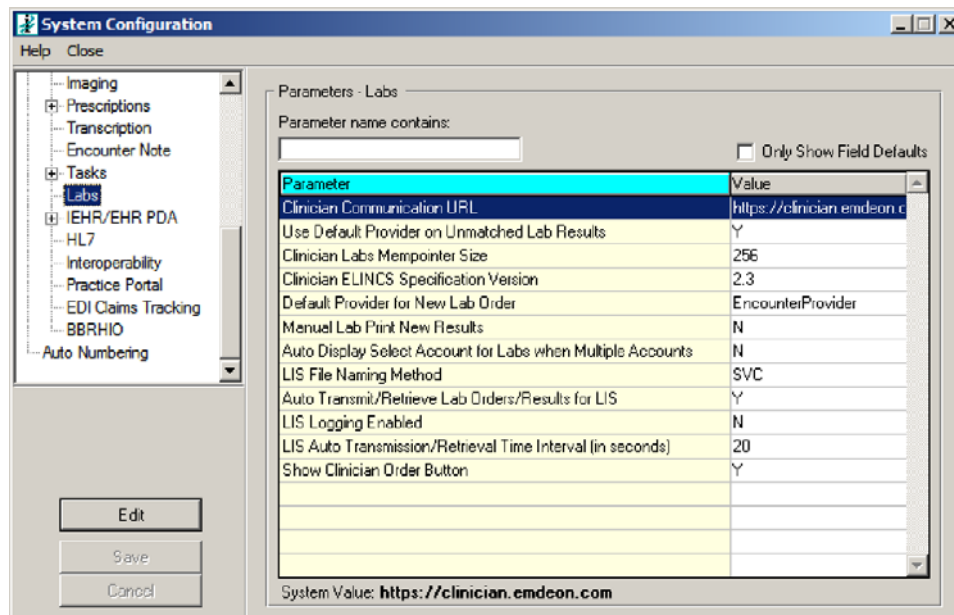
When upgrading an existing Sage Intergy installation to version 7.00, the previous LIS service is also upgraded. The existing LIS application is replaced with the new Windows service, and application shortcuts in the Start Menu are deleted. However, some components of the previous installation may not be automatically removed. After verifying that the Sage Intergy Laboratory Information Service is correctly installed in the Windows services list, delete any desktop shortcuts found on the Sage Intergy database server that are associated with the LIS service.



These shortcuts may have different names or different icons depending on the version of Sage Intergy that was upgraded. Also, these shortcuts may be present in more than one desktop profile. Delete all LIS shortcuts from all profiles, and inform the appropriate customer representative about the new automation related to LIS service operation.

Sage Intergy System Configuration

Some Sage Intergy customer sites may require LIS settings to be customized in order to match the configuration of their third-party laboratory systems. Open the System Administration window and access the System Configuration settings. Click on the Labs item in the left pane to display LIS configuration options.



Some or all of the following parameters may need to be changed in order to match the operation of the third-party laboratory system:

- LIS File Naming Method
- Auto Transmit/Retrieve Lab Orders/Results for LIS
- LIS Logging Enabled
- LIS Auto Transmission Retrieval Time Interval

Save any changes before proceeding. It will be necessary to stop and then restart the Windows service to apply these new settings.

Next Steps

If necessary, configure the third-party laboratory system for communication with Sage Intergy. Refer to the vendor documentation for installation and configuration instructions.

Appendix F: Multiple Database Installation

Some customer environments may require installation of more than one database. Installation of multiple databases on a single server is not supported, but it is possible to implement a Sage Intergy environment with more than one database each on its own server. While installation of additional database servers does not differ significantly from the normal process, installation and configuration of Sage Intergy services, additional Sage Intergy applications and Sage Intergy client workstations requires additional work action. Many of the additional installation and configuration steps are completed using the Sage Intergy Client Configuration tool.

This section provides a detailed overview of the installation steps for multiple database environments that differ from a normal Sage Intergy server setup. This section does not provide comprehensive information about the usage and features of the Sage Intergy Client Configuration tool, and only covers those functions that are relevant to multiple database environments.

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Typical Installation Settings

The following table lists typical installation settings used for multiple Sage Intergy database installations in most environments. However, many settings may have to be changed to suit specific customer requirements or to conform to the standards of an existing computing environment. Use this table as a reference if you are already familiar with the details of installation.

Application Component	Configuration Item	Value or Setting
Sage Intergy Database Server Installation Options	DB Server Name	IntergyServer1, IntergyServer2, etc. with incrementing number for each database server.
	Port	2500
Sage Intergy Services	DDS Transcription Append/ Approve Line Service, and RIS DDS Services Remote Print Service Internal Labs Server Practice Portal Service TMS Import Service Cardio Service Import Encounter Finding Service	Not installed on Sage Intergy client workstations in multiple-DB environments.
Client Installation	Services Configuration DB Server	Use network name of the first database server that is installed.
Client Configuration Utility Profile Settings	Configuration Name	Meaningful name for System Selector screen (e.g. 'Sage Intergy - Production' or 'Sage Intergy - Training')
	Database name	Medman
	Database Server Name	Use network name of the one database server for each profile.
	Service Name / Port#	Intergy-DB

Directory names should always be adjusted to match actual directory locations when Sage Intergy is installed in a non-standard implementation. Detailed instructions for installation of these application components are provided in the following pages.

Overview

Installation of more than one database server in a Sage Intergy environment is relatively uncommon, but may occur for one of several reasons. A Sage Intergy customer may have a requirement for a Sage Intergy installation that is separate from an active production database, for training or development purposes. There may also be two or more Sage Intergy customers who must have separate databases, but are also sharing workstations and users on a single local area network. Whatever the reason, all Sage technicians should be familiar with implementation of a multiple database Sage Intergy environment, which is a fully supported configuration of the product.

Configuration Restrictions

Note the following requirements and limitations that must be considered before installing multiple databases for a Sage Intergy customer:

- Each database must be installed on a separate server. Multiple databases on a single server are not supported. When possible, these servers should be named using incrementing number suffixes (IntergyServer1, IntergyServer2, and so on.)
- All database servers must be installed with the same version of Sage Intergy and the same hotfix and patch levels. Clients that are configured to connect to more than one database will not function correctly if database versions are not matched exactly.
- Each database server must have its own separate Sage Intergy application and Sage Intergy service installations. Separate supporting servers and stand alone application servers must be installed for each database that requires these components. For example, each database server must have its own RPS server and are not able to share a single RPS installation.
- Sage Intergy clients installed on a supporting server cannot be configured to connect to multiple databases. For example, the RPS server that supports IntergyServer1 cannot have the client configured to also connect to IntergyServer2.
- Likewise, Sage Intergy client workstations that are configured to connect to more than one database server cannot have Sage Intergy services installed on them. For example, a workstation that makes client connections to both IntergyServer1 and IntergyServer2 cannot also have DDS installed. This restriction applies to all Sage Intergy services and applications.

Sequence of Installation

At a high level, you will follow these steps to install a multiple database Sage Intergy environment:

- Install Sage Intergy database servers and supporting servers using the normal process.
- Install workstation clients using the normal process with a default configuration.
- Execute the Client Configuration Utility on one workstation to create multiple database connection profiles
- Copy these profiles to each Sage Intergy client workstation that will connect to more than one database.

These steps are described in more detail on the following pages.

Install Server

For each database server, follow the installation process as described in Chapter 2. As required, install Sage Intergy services and Sage Intergy applications as needed for each environment.

Note that unique network names are a requirement for a multiple database Sage Intergy environment. In all cases, use the naming standard of incrementing numbers at the end of standard Sage Intergy server names when possible. This will result in several servers named IntergyServer1, IntergyServer2, and so on. When installing supporting servers or Sage Intergy application servers, use a number at the end of each server name that corresponds with the database server name for which that service or application is installed.

Note the Services Configuration portion of the database server installation process as described on page 2-4. By default, the Sage Intergy TCP service port number uses a standard value of 2500. Each database server may safely use this same port number. As with any installation, if this port number conflicts with an existing application or service in the customer environment, select a new TCP port number and note this change for all subsequent steps of Sage Intergy installation.

As a best practice, do not proceed to client installation and configuration until all database servers in the customer environment are installed.

Install and Configure Sage Intergy Client

The standard Sage Intergy client may be configured to connect more than one database. Usage of the Client Configuration Utility permits the creation of connection profiles, which may be activated by use of the Sage Intergy System Selector.

Note that these instructions do not apply to Sage Intergy EHR clients or management tools. Proceed to page 15-11 for instructions on configuring Stand Alone Sage Intergy EHR clients and administration tools for connection to multiple databases.

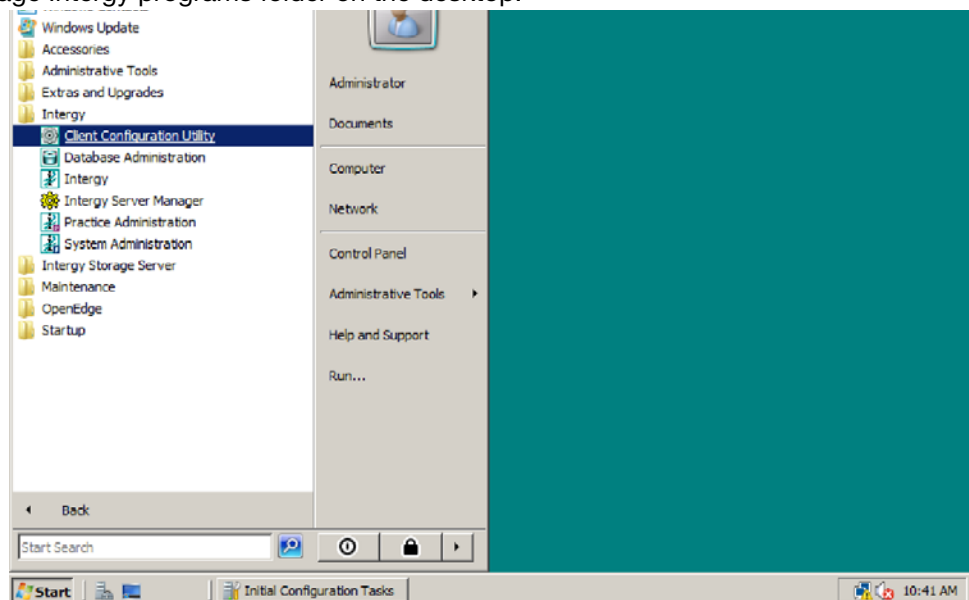
For each client workstation, install the Sage Intergy client application as described in Chapter 3. Remember that Sage Intergy services and applications cannot be installed on client workstations that are intended to be used with more than one database. As a best practice, make sure that all client workstations use the same installation parameters.

Note the Services Configuration portion of the client installation process as described on page 3-8. For the DB Server parameter, enter 'IntergyServer1' or the name of the first database server that was installed. For the TCP port number, use the default value of 2500 unless a different value was entered.

After successful installation of Sage Intergy client workstations, select one workstation to configure multiple database connection parameters, using the Client Configuration Utility. These parameters will then be copied to all other workstations. These work actions are described in more detail on the following pages.

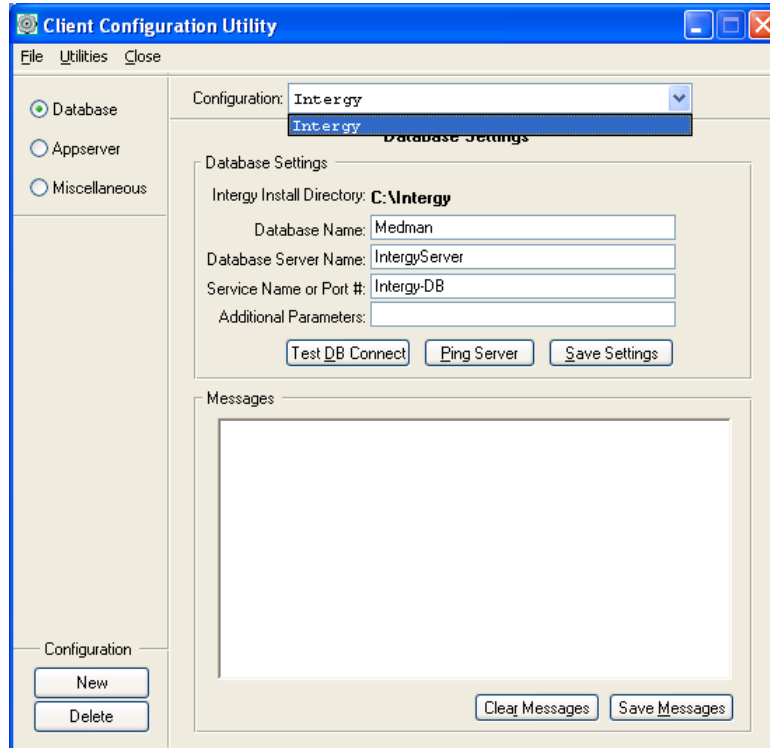
Client Configuration Utility

1. Start the Client Configuration Utility from the shortcut on the Start Menu, or from the Sage Intergy programs folder on the desktop.

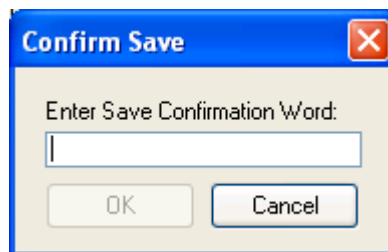


2. The Client Configuration Utility window is displayed. Note that under the Configuration drop-down menu, only one configuration profile is displayed. By default, this profile will

have the name 'Intergy' and will include only the connection parameters specified during installation of the Sage Intergy client.



3. Click on the New button to make a new configuration profile. The first time any action is taken in the Client Configuration Utility, a confirmation window is displayed.



Enter the password 'Intergy' with no quotes, and click on the OK button to proceed to the next step. Note that this password is not case-sensitive.

4. The new Sage Intergy Configuration window is displayed.

New Intergy Configuration

Configuration Name:

Database Settings

Database Name:

Database Server Name:

Service Name / Port #:

Appserver Settings

Host Server Name:

Name Server Port:

Primary Appserver:

Asynchronous Appserver:

State Free Appserver:

Save Cancel

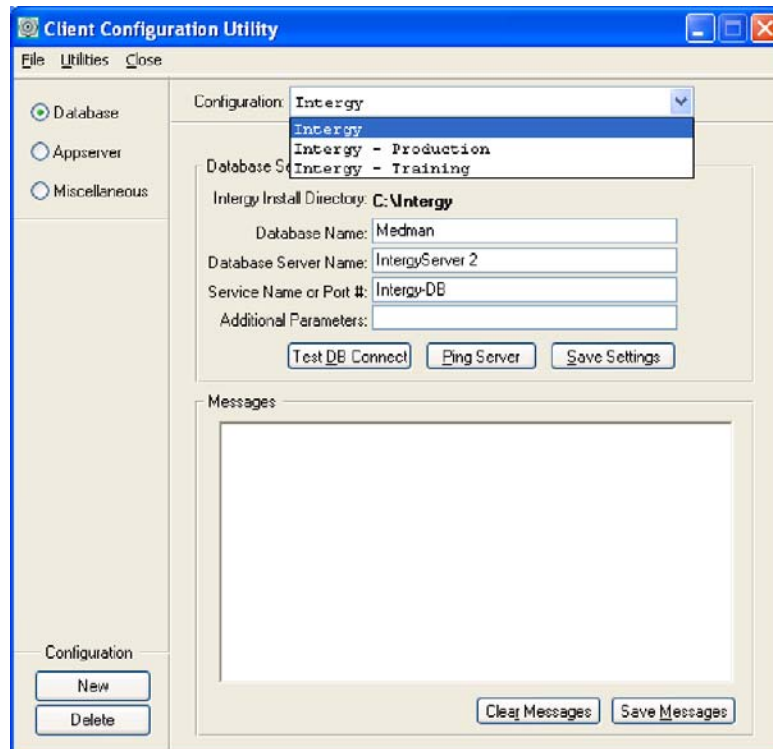
For each Sage Intergy database configuration profile, enter these four values:

- Configuration Name - Enter a meaningful name to identify the specific Sage Intergy environment for which this configuration is created. For example, 'Sage Intergy - Training' might be used to distinguish a training environment.
- Database name - This value should always be set to 'Medman' with no quotes.
- Database Server Name - Enter the DNS name of the Sage Intergy database server for this configuration. In most environments, you will use 'IntergyServer1', 'IntergyServer2' and other names with an incrementing numeral at the end as required.
- Service Name / Port# - For most installations, enter the default value of 'Intergy-DB' with no quotes. On some workstations, you may have to specify the numeric port number for which the Sage Intergy services are installed. This value is normally 2500, but may be set differently in complex or large computing environments. Refer to the Sage Intergy database server configuration settings if you are not sure what port number is in use.

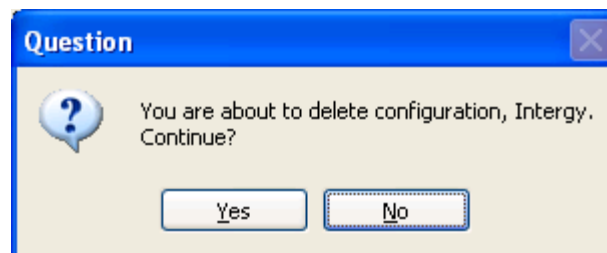
Leave all other settings at their default values, and then click on the Save button to save these changes.

5. Repeat steps three and four for each database that is installed in this customer environment. Make sure each configuration has a unique configuration name and database name value.

6. After the last configuration is entered, you will return to the main Client Configuration Utility window. Note that in the drop-down list, the default Sage Intergy configuration is still listed, and the new configurations just entered are now also listed.



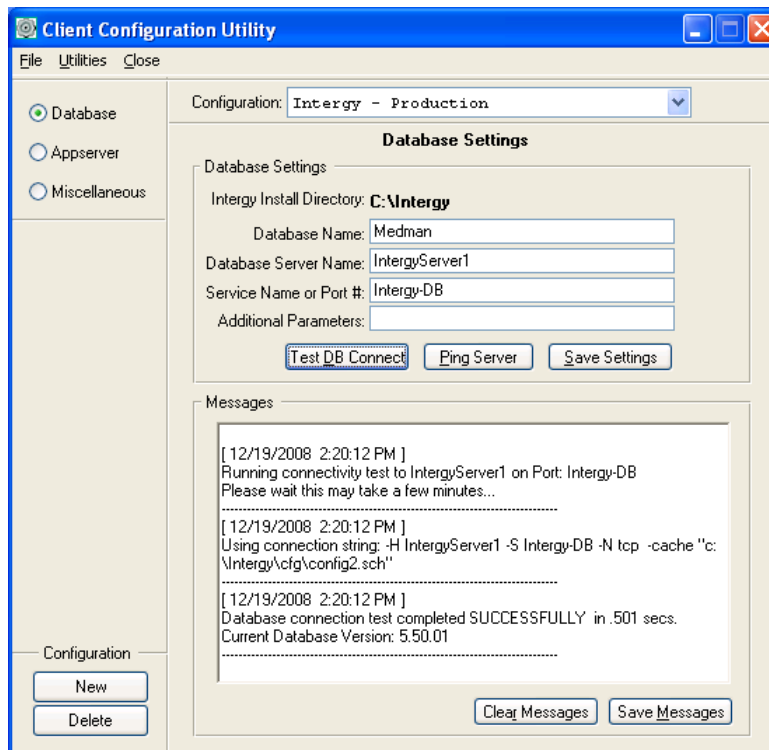
7. Select the default 'Intergy' configuration profile from the drop-down list in the Client Configuration Utility. Since this profile has a generic configuration name and has the same settings as another profile with a more meaningful name, it should be deleted. Click on the Delete button in the lower right corner. A confirmation prompt will be displayed.



Click on the Yes button to confirm deletion of the profile.

8. You will return to the Client Configuration Utility. Confirm that only the profiles that you created remain in the drop-down list. For each configuration, select the profile from the

drop-down list and click on the Test DB Connection button to test the connection. A series of message will be displayed to indicate success or failure of the connection test.



If any profile indicates a connection failure, use the radio buttons in the upper right corner of the Client Configuration Utility window to select each configuration parameter tab. Double-check the settings that were entered in steps 4 through 7 and make sure that all server names and port numbers are entered accurately. Click on the Save Settings button for each profile after making any changes, and before executing any test.

9. When all database configuration profiles are successfully tested, click on the Close menu item to close the Client Configuration Utility. Reboot the client workstation or terminal server before proceeding to the next step.
10. At this point, it is necessary to test the Sage Intergy desktop System Selector. Double-click on the Windows desktop icon for Sage Intergy, or select the Sage Intergy item from

the Start menu or Sage Intergy folder. Instead of the Sage Intergy Desktop logon prompt, the System Selector window will be displayed.



11. Verify that all profiles configured in the previous steps are displayed in the System Selector list. Click on any profile and click on the Select button to open the Sage Intergy Desktop for that database server. The Sage Intergy desktop will be displayed. Verify that all profiles lead to the expected Sage Intergy interfaces, and then close each Sage Intergy desktop. Click on the Close button to close the System Selector.

Copy Configuration Profiles

At this point, you are ready to duplicate this configuration to all other client workstations that will be used to connect to multiple databases. From the first configured workstation, copy the following files:

C:\Intergy\ClientConfig.ini

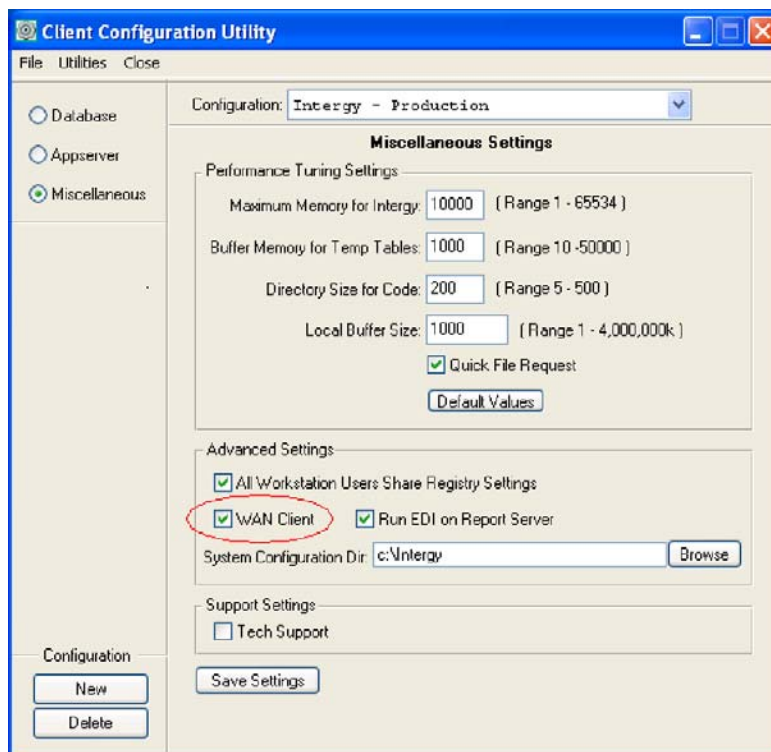
C:\Intergy\cfg\config*.ini (multiple files)

Note that in the C:\Intergy\cfg directory, there will be one INI file for each configuration profile that was created using the Client Configuration Utility. Copy all of these files to the same directory on each Sage Intergy client workstation that will be used to connect to multiple databases. Test a representative sample of client workstations to ensure that the system selector is operating correctly.

WAN Client Configuration

Note that WAN clients in a multiple database environment require two additional steps for profile configuration. As a best practice, configure and test Sage Intergy WAN clients manually, rather than using configuration profile files from other LAN-based Sage Intergy clients. Configuration occurs normally as described in the previous sections, with an additional set of steps as described on the following pages.

When configuring a WAN client, note the additional configuration parameters in the Client Configuration Utility.



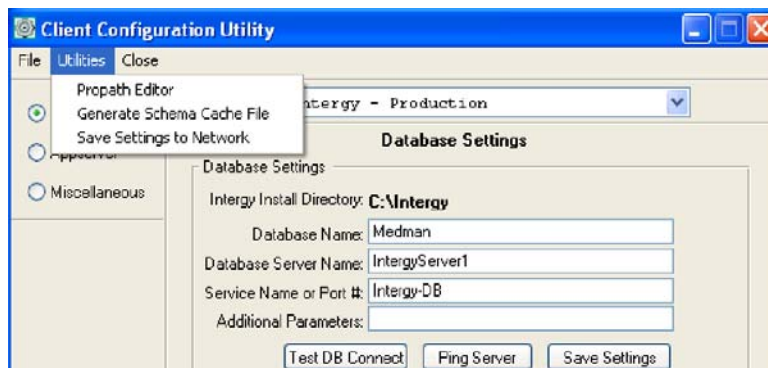
Click on the Miscellaneous radio button to display the miscellaneous client configuration parameters and note the WAN Client checkbox. Make sure this checkbox is selected for WAN clients that are configured for multiple database environments.

Click on the Save Settings button to save this configuration. Test DB connectivity and System Selector operation as described in the previous sections for all WAN clients.

Configuration Utility Menu Options

This portion of the Sage Intergy 7.00 Installation Guide does not constitute a complete guide to the functions of the Client Configuration Utility. Note that some functions of the Client Configuration Utility are not yet fully implemented and should not be used except under the direct supervision of Sage R&D.

In particular, the Utilities menu contains application functions that should not be used.



Do not use the Save Settings to Network function of the Client Configuration Utility. Management and maintenance functions Sage Intergy client configuration profiles are not yet implemented. Improper use of this menu option will disable Sage Intergy client connectivity and require manual configuration or reinstallation.

Next Steps

Other portions of Sage Intergy environment configuration must be performed for all database servers in a multiple database environment. Work actions including configuration of backup and database tuning must be completed for each database server.

Appendix G: Cardio Service Installation

The Sage Intergy Cardio service supports the operation of a Heart Centrix ECG device for automated data entry into IEHR. For this specific service, installation of the third-party Heart Centrix application is provided by Cardiac Science corporation technicians. However, it will be the responsibility of the Sage technician to configure additional hardware and provide required configuration information.

This section provides an overview of the installation and configuration steps required for successful implementation of the Cardio service and its associated application components. This section does not provide comprehensive information about installation of the Heart Centrix software product, and only covers those functions that are relevant to IEHR data connectivity.

Note that additional configuration is required when connecting a Heart Centrix server and a Sage Intergy system that are installed on different local area networks, and must communicate using the public Internet. This type of implementation is typically required when the Cardio service is installed for use with Sage Intergy on Demand.

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Overview

The Cardio service is a Sage Intergy service that is normally installed when IEHR is configured to receive patient data from a Heart Centrix ECG device. This service provides a web authentication component on a custom TCP port. To support operation of the ECG hardware, the Heart Centrix server and client components must also be installed in the customer environment. Typically, this installation is performed by employees of the Cardiac Science Corporation and not by Sage technicians. Cardiac Science personnel are also responsible for installation of Heart Centrix client components on each Sage Intergy client workstation or terminal server.

In a typical installation, the Heart Centrix software is installed on a server that is not also a Sage Intergy database server or application server. In most cases, this server will be purchased from Sage and installed in the customer environment by Sage technicians, who will be required to install and to configure both the hardware and the operating system. Sage technicians will also be responsible for gathering specific data required for successful connectivity between IEHR and the Heart Centrix server. These installation requirements are described in more detail below.

Additional configuration on both the Sage Intergy system and the Heart Centrix server are required when the Cardio service is installed for use with Sage Intergy on Demand. For this type of installation only, refer to the configuration steps beginning on page 18-5.

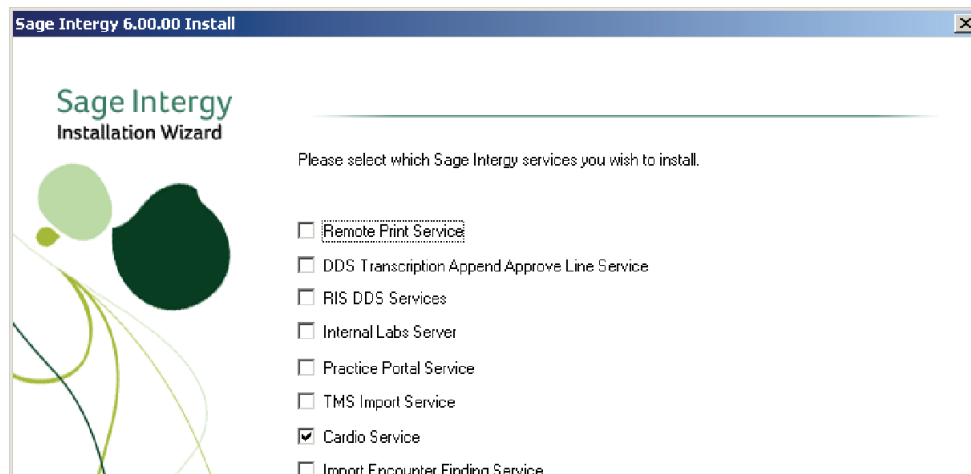
Sage Intergy server installation steps

Network Configuration

Heart Centrix application services must make specific network connections via the numeric IP address. For this reason, Sage R&D strongly recommends that the Sage Intergy database server be configured with a static IP address, or with a DHCP reservation when the Cardio service is installed.

Sage Intergy Services selection

The Heart Centrix server software connects to IEHR through the Cardio service. For new implementations of Sage Intergy, this service is selected from the Sage Intergy Services installation window during initial installation of the database server.



For installation that occurs when upgrading to Sage Intergy 7.00, or when adding the Cardio service to an existing Sage Intergy 7.00 server, you will instead use the 'IntergyCardioSvc.bat'

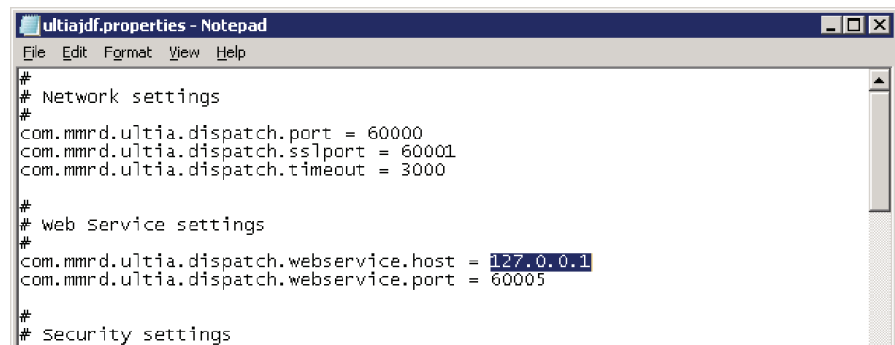
installation script. In a typical Sage Intergy installation, this installation script is found in the C:\Intergy\Code\Shared\Support\NTServices directory. Execute this file from the command line, or open Windows Explorer and browse to this location and double-click on the 'IntergyCardioSvc.bat' file. Run this script only on the primary Sage Intergy database server and not on any Sage Intergy workstation or other application server.

Ultia Configuration

After successful installation of the Cardio service on the Sage Intergy database server, the Ultia JDF configuration file must be manually edited. In a typical installation, this file may be found in the following location:

C:\Intergy\Ultia\Properties\ultiajdf.properties

Open this file using a text editor and change the IP address listed in the Web Service Settings section of the configuration:



The numeric localhost address is listed as the webservice host address. Substitute the numeric IP address of the Sage Intergy database server. Do not use the fully qualified domain name, WINS address, or any other non-numeric addressing. Save the file after changing the address, and restart the Ultia service to apply this configuration change.

Heart Centrix installation

Heart Centrix server installation and client setup is completed by Cardiac Science Corporation technicians and not by Sage personnel. However, Sage technicians may be required to install additional server hardware to support this application, and are tasked with gathering specific Sage Intergy system information to complete a successful installation. These tasks are described in more detail in the following procedures.

Server Requirements

As a best practice, the Heart Centrix software should be installed on a separate server and not on the primary Sage Intergy database server. If a Windows domain is installed, the Heart Centrix server should also be a member of the same domain as the primary Sage Intergy database server. Sage strongly recommends that the Heart Centrix software be installed on a Microsoft Windows Server product and not on Windows XP.

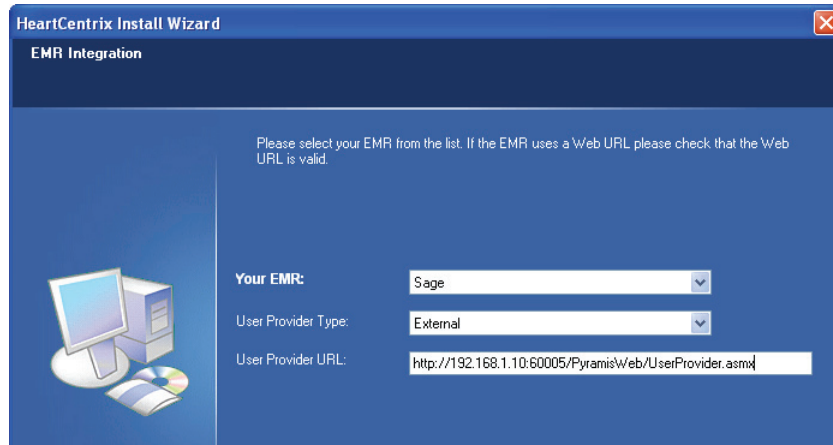
When installed on Windows XP, the Heart Centrix server may support only two concurrent Sage Intergy EHR client connections. Sage strongly recommends that Microsoft Windows Server 2003 or higher be installed to accommodate more than two Sage Intergy EHR clients.

To view the complete text of the Heart Centrix installation manual, access the file 'Manual_setup.pdf' on the Heart Centrix installation CD. To view the Heart Centrix system requirements document, open the following vendor documentation URL:

<http://www.cardiacscience.com/assets/004/5422.pdf>

Sage Intergy system information

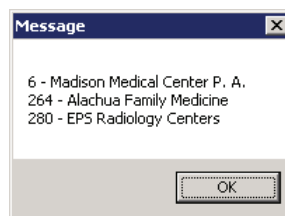
During installation of Heart Centrix, the Cardiac Science technician will be prompted to enter information about the Sage Intergy database server and customer environment.



Prepare the following information before installation occurs:

- **Practice ID** - The Practice ID is the unique identifier used by EDI billing systems and other third parties to distinguish the Sage customer from other practices. You must provide this number to the Cardiac Science technician when installing the Heart Centrix application. The Practice ID data may be obtained by opening the System Administration desktop and selecting the 'Run Procedure' item from the Tools menu. Execute the procedure 'C:\Intergy\Code\UI\Clt\Support\IEHR\Cardio\PracticeInformation.r' to display list of all of the Practice ID numbers.

Note that the Heart Centrix application may be configured to connect to multiple practices within a single Sage Intergy installation if each practice is serialized for IEHR. In the example below, note that each practice that is listed has a different ID number.



- **IP Address** - The numeric IP address is required to allow the Heart Centrix server to connect to the Sage Intergy database server. In a default installation of Sage Intergy, this will typically be the address 192.168.1.10. Provide the correct address in use at the customer site.
- **Port Number** - All IEHR installations use port 60005 as the TCP port for Cardio service application connections. This number may need to be manually entered during installation of the Heart Centrix application.

Client Installation

Heart Centrix client software is not distributed with Sage Intergy 7.00. A separate client component installation procedure must be completed by Cardiac Science personnel to support operation with Sage Intergy. An error message will be displayed in Sage Intergy client applications if Heart Centrix components are not present. Sage technicians are responsible for verifying that client installation is completed for all desktop workstations and other client platforms.

Internet Connectivity for Sage Intergy On Demand

In some cases, a Heart Centrix server and a Sage Intergy system are installed on different local area networks, and must communicate using the public Internet. This type of implementation is typically required when the Cardio service is installed for use with Sage Intergy on Demand. If you are not installing the Cardio service for use with Sage Intergy on Demand, skip to page 18-10 to configure backup options.

Configuration of Sage Intergy to communicate with a Heart Centrix server in this type of environment requires the use of a secure tunnel, to ensure that patient-identifiable data and other private information is protected. The Sage Secure Tunnel product must be installed successfully on both the Sage Intergy server and the Heart Centrix server before proceeding with this configuration. This application is also known as the MIST service, and is also used to configure remote printing or Health Level 7 (HL7) connectivity for Sage Intergy On Demand servers. For detailed information on installation and configuration of the MIST service, refer to the Sage Secure Tunnel Reference documentation on the Sage corporate intranet at the following URL:

http://intranet.sagehealth.com/Departments/Development/Technical%20Documentation/RD%20Technical%20Document%20Library/Intergy/Version%20Independent/MIST_REF_C.pdf

At a high level, you will complete the following configuration tasks to support communication between Sage Intergy and Heart Centrix systems through a public Internet connection:

- Enter secure tunnel configuration parameters for MIST
- Modify Sage Intergy EHR connectivity settings
- Modify Heart Centrix ECG Management Configuration options

These tasks are described in more detail below.

Secure Tunnel Configuration Parameters

To implement a secure tunnel for TCP packet transmission between the Sage Intergy system and the Heart Centrix server, the HL7 connection type will be used when configuring the MIST service. Although communication to support Cardio service operation does not use the HL7 standard, this type of tunnel may also be used to secure general TCP network transmission.

Several sets of bidirectional secure tunnels must be configured, one each for the Ultia connection port, web browser connectivity, and secure web browser connections. Use the following tables as a reference to configure a standardized set of tunnels. Make sure that you have applied the correct configuration type on the appropriate server for each tunnel that is configured.

Use the following settings for configuration of the MIST service on the Heart Centrix server.

Configuration Parameter	Source Tunnel	Destination Tunnel
Ultia Communication tunnel		
Name	UltiaSourceHC	UltiaDestHC
Local Address	"Any"	"Any"
Local Port	26100	26100
Remote Address	Internet-facing address of Heart Centrix server	127.0.0.1
Remote Port	26100	60005
Web Browser connectivity tunnel		
Name	WebSourceHC	WebDestHC
Local Address	"Any"	"Any"
Local Port	26101	26101
Remote Address	Internet-facing address of Heart Centrix server	127.0.0.1
Remote Port	26101	80
Secure Web Browser connectivity tunnel		
Name	SSLSourceHC	SSLDestHC
Local Address	"Any"	"Any"
Local Port	26102	26102
Remote Address	Internet-facing address of Heart Centrix server	127.0.0.1
Remote Port	26102	443

Note the use of TCP ports 26100, 26101 and 26102 in a typical installation. The same ports must also be configured when the MIST service is configured on the Sage Intergy server. If any of these ports are already in use, configure a different set of TCP ports and document their usage, and substitute the appropriate ports when configuring the Sage Intergy server.

Use the following settings for configuration of the MIST service on the Sage Intergy server.

Configuration Parameter	Source Tunnel	Destination Tunnel
Ultia Communication tunnel		
Name	UltiaSourceEHR	UltiaDestEHR
Local Address	“Any”	“Any”
Local Port	26100	26100
Remote Address	Internet-facing address of Sage Intergy server	127.0.0.1
Remote Port	26100	60005
Web Browser connectivity tunnel		
Name	WebSourceEHR	WebDestEHR
Local Address	“Any”	“Any”
Local Port	26101	26101
Remote Address	Internet-facing address of Sage Intergy server	127.0.0.1
Remote Port	26101	80
Secure Web Browser connectivity tunnel		
Name	SSLSourceEHR	SSLDestEHR
Local Address	“Any”	“Any”
Local Port	26102	26102
Remote Address	Internet-facing address of Sage Intergy server	127.0.0.1
Remote Port	26102	443

Note the use of TCP ports 26100, 26101 and 26102 in a typical installation. The same ports must also be configured when the MIST service is configured on the Heart Centrix server.

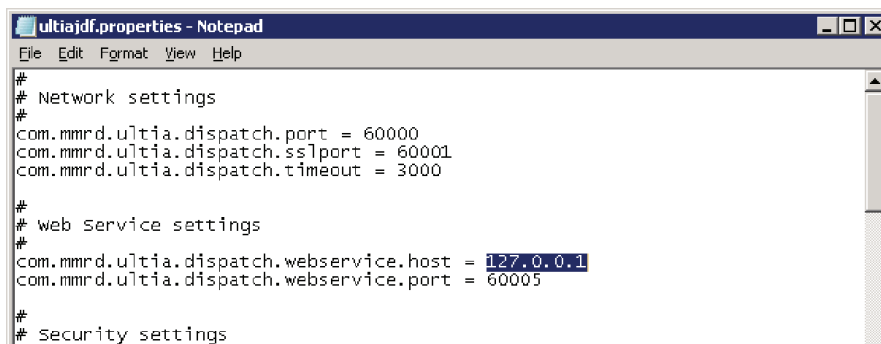
These network ports should also be open for Internet connectivity between the Sage Intergy server and the Internet. If necessary, configure the router or other network hardware in the customer environment to permit TCP traffic on these ports to be transmitted to and from the Sage Intergy server. If any of these ports are already in use, configure a different set of TCP ports and document their usage, and substitute the appropriate ports when configuring the Heart Centrix server.

Modify Sage Intergy EHR Connectivity Settings

In a normal installation, the Sage Intergy Cardio service is configured to connect to the Heart Centrix server directly on the same LAN. When used with Sage Intergy On Demand, the Ultia JDF configuration file must be manually edited to reflect a connection made to the localhost. In a typical installation, this file may be found in the following location:

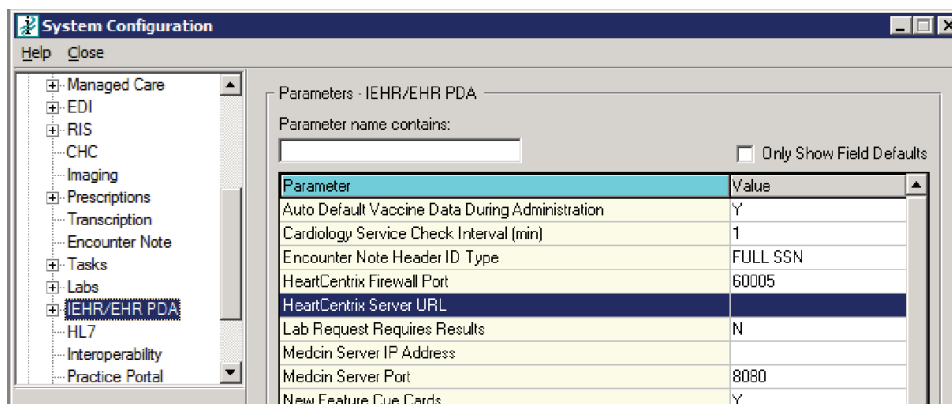
C:\Intergy\Ultia\Properties\ultiajdf.properties

Open this file using a text editor and change the IP address listed in the Web Service Settings section of the configuration:



Change the webservice host address to use the localhost address. Do not use the fully qualified domain name, WINS address, or any other non-numeric addressing that applies to the actual Internet-facing address of the Heart Centrix server. Save the file after changing the address, and restart both the Ultia service and the Sage Intergy Cardio service to apply this configuration change.

In the Sage Intergy System Administration desktop, locate the HeartCentrix Server URL parameter.



Edit the value for this parameter and type the following text:

http://127.0.0.1:26100

If necessary, substitute the port used for the Ultia secure tunnel if 26100 was not used for this setting. Remember to save this change before proceeding to the next step.

Modify Heart Centrix ECG Management Configuration Options

In a normal installation, Heart Centrix server application options are automatically configured during initial installation, as described on page 18-3. It may be necessary to seek assistance from the Cardiac Science technicians who have performed this installation to modify the configuration of the Heart Centrix application to support operation with Sage Intergy on Demand. Use the following procedure to make these configuration changes.

1. Log on as the local administrator to the Heart Centrix server in the customer environment.
2. Open the Heart Centrix ECG Management Configuration program. Typically, this application may be found in the Start menu in the Cardiac Science program group. The location of this program may be different depending on the operating system in use on the Heart Centrix server.
3. Use the graphical interface of the Heart Centrix ECG Management Configuration program to locate the ECG Web API settings interface. The location and appearance of this interface may differ depending on the version of the Heart Centrix application that is installed.
4. Locate the EMRUSERS ID settings. Note that several configuration parameters are available, some of which may have already been configured with default values for connection to Sage Intergy. To support connection over the Internet for Sage Intergy on Demand systems, change the following configuration parameter values:
 - Data - `http://127.0.0.1:26100` is the standard value. Substitute the appropriate TCP port if 26100 was not used for secure tunnel configuration in the customer environment.
 - Is Default - Select this checkbox to make this setting the default for all connections.
 - Media Type - Select the 'UnsupportedMediaType' option.
5. Click on the Save button to save the EMRUSERS ID settings, then click on the Save button to apply ECG Web API configuration changes.

You have successfully applied Heart Centrix server changes to support operation with Sage Intergy on Demand.

Configuring Backup

Because the Sage Intergy Cardio service is installed on hardware separate from the Sage Intergy database server, the application files are not included in the main Sage Intergy backup process. This section describes the options available to Sage technicians for including the Heart Centrix server in the backup process for Sage Intergy customer site implementations.

Configuring the Heart Centrix backup is the responsibility of Sage technicians and is not performed by Cardiac Science personnel. Configuration of the Sage Intergy Cardio service is not complete until a backup method is installed, configured and tested. All instructions in this section assume that you are logged in to the Sage Intergy database server or the Heart Centrix server as an account with local administrative privileges.

Sage technicians should use one of the following methods to implement a backup when a Heart Centrix application server is installed with the Sage Intergy Cardio application service:

- Symantec Backup Exec 12.5 Remote Agent (with an existing Backup Exec installation)
- Full backup solution. Computer Associates (CA) Arcserve r12.5 or later is the recommended software for a full backup product.

These options are described in more detail below.

Backup Exec Remote Agent Installation

For sites that use Symantec Backup Exec 12.5 as the backup application on the primary Sage Intergy database server, a remote agent may be installed on the Heart Centrix server. This allows files and configuration settings from multiple computing devices to be included in a single backup, without requiring the installation of a separate tape drive or other backup media on each server.

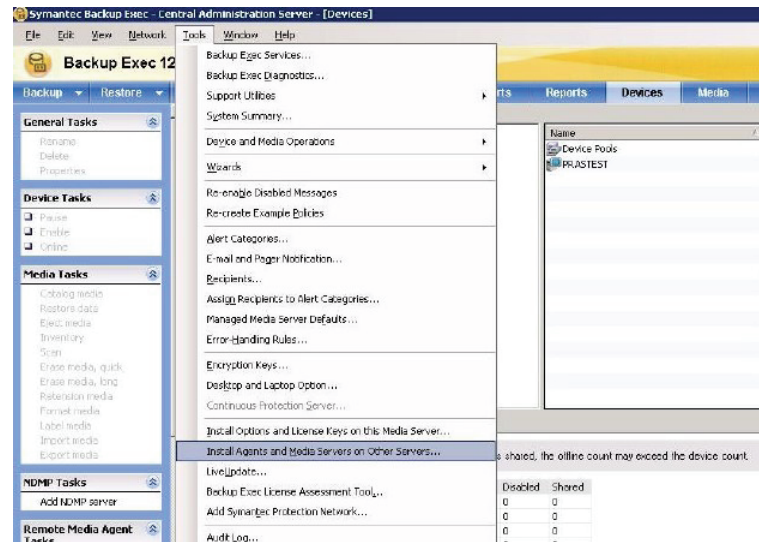
Note that Backup Exec Remote Agent installation requires an additional purchase and separate licensing. Make sure that the customer site has purchased the appropriate additional Backup Exec components before proceeding with the installation of Backup Exec Remote Agents.

Installation Options

Installation of the Backup Exec Remote Agent may be performed from the Sage Intergy database server where Backup Exec is already installed. You may also perform installation using CD media on the Heart Centrix server. For either installation option, you will be prompted to enter some or all of the following information:

- Logon name and password of an account with administrative access on the Heart Centrix server. If this server is a member of a Windows domain, you must also specify the domain during installation.
- IP address of the Sage Intergy database server. This information is used by the Backup Exec Remote Agent to access the backup media destination located on the Sage Intergy database server.
- Select the option 'Enable the Remote Agent to publish information to the media servers in the list' when prompted. This will allow the Heart Centrix server to report the status and success or failure of scheduled backup processes to the Sage Intergy database server.

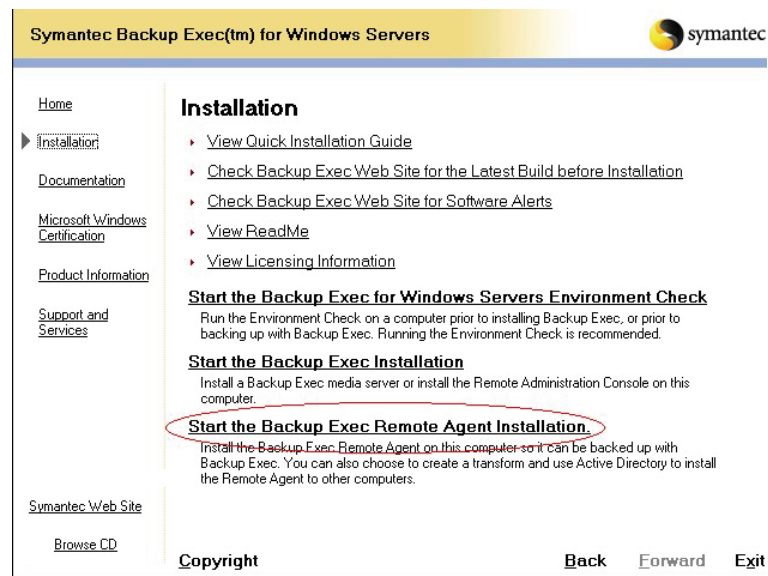
Installation of the Remote Agent from the Sage Intergy database server is known as a push installation. Select this option from the Local Administration Server interface of Backup Exec on the Sage Intergy database server.



For detailed instructions on push installation, refer to the Symantec product documentation at the following URL:

<http://seer.support.veritas.com/docs/274163.htm>

Installation of the Remote Agent locally on the Heart Centrix server requires the installation CD to be inserted into the CD-ROM drive of that device. Select the 'Start the Backup Exec Remote Agent Installation' option in the Installation Wizard to begin this process.



For detailed instructions on local installation, refer to the Symantec product documentation at the following URL:

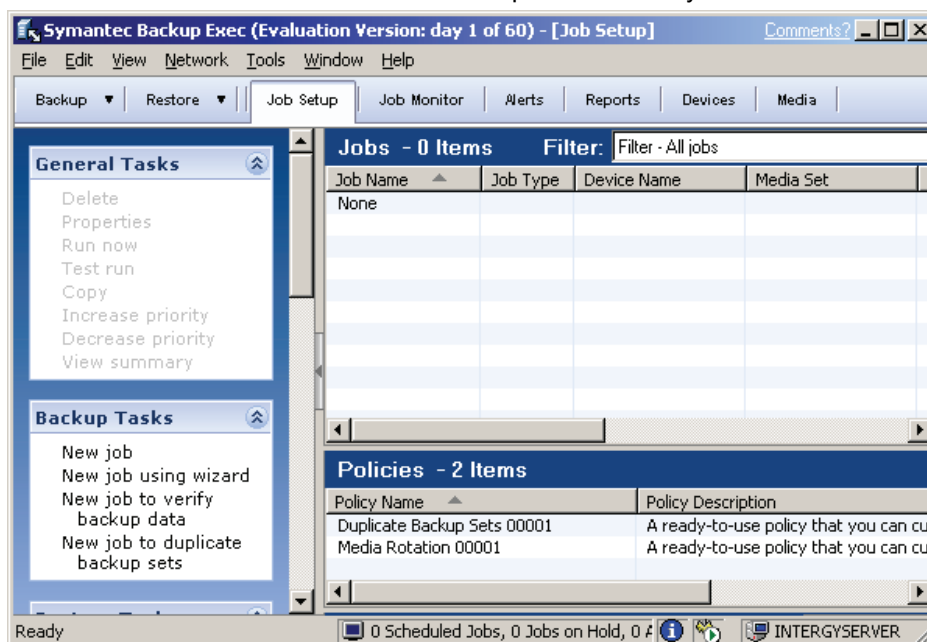
<http://seer.entsupport.symantec.com/docs/286949.htm>

Installation Configuration

A new backup job must be configured to retain data from the Heart Centrix server. This job is separated from the main Sage Intergy database server backup for ease of troubleshooting errors and failures. Follow these numbered steps to configure a new backup job for the Heart Centrix server.

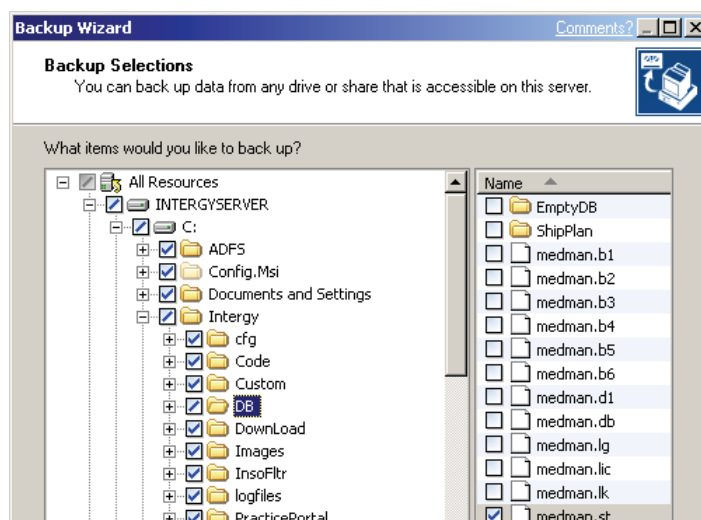
After successful installation, open the Backup Exec Administration console and configure the scheduled backup jobs.

6. Open the Backup Exec Administration console from the Windows start menu on the Sage Intergy database server. If a configuration wizard starts, click on the Cancel button to return to the Administration console and set options manually.



Create a New Backup Job

7. Clicking on the 'New job using wizard' item in the Backup Tasks window will display the Backup Wizard. The first window displayed is the Backup Selections window.



Scroll to the bottom of the backup selections list and select the following directories from the Heart Centrix server resource item:

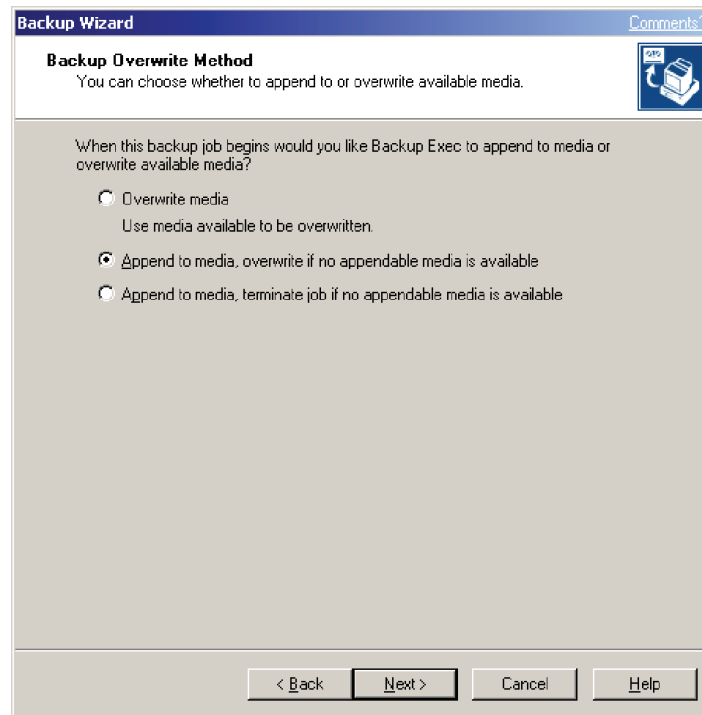
- C:\Program Files\Cardiac Science\HeartCentrix
- C:\Program Files\Cardiac Science\HeartCentrixBackup

Click on the Next button to proceed to the next step.

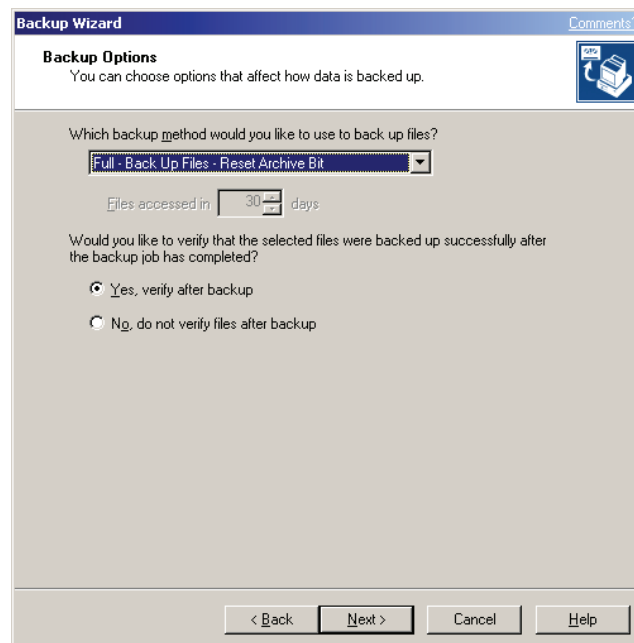
8. A series of prompts will be displayed to validate server logon credentials entered during initial installation, and to confirm the backup resource selections. Click next to proceed past both prompts.
9. The Backup Names window is displayed. Enter a backup job name suitable for the customer environment in both fields. Use 'Cardio System Backup' if the customer does not have a preferred job name. Click on Next to proceed to the next step.

10. The Backup Device selection window is displayed. Select the default backup destination. In most cases, this will be a tape drive, a Rev drive or the RDX Quickstore removable storage drive. Click on Next to proceed to the next step.

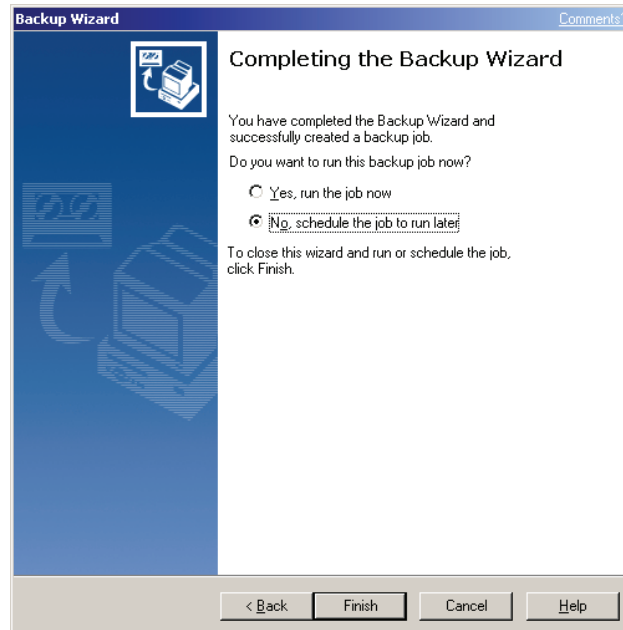
11. The Overwrite Method window is displayed. Change the selected radio button so that the 'Append to media, overwrite if no appendable media is available' option is selected, and click on Next to continue.



12. The Backup Options window is displayed. Select 'Full - Backup Files - Reset Archive Bit' for the backup type and click in the 'Yes, Verify after backup' radio button to select these options. Click on Next to continue.



- 13.** The Completion Notification window is displayed. Select 'No, schedule the job' to process the job as a scheduled item instead of running it now, and click on the Finish button to proceed to the next step.



- 14.** The Backup Job scheduler is automatically started after the Backup Wizard is closed. Use the process described on page 12-14 to schedule a new separate time for the Heart Centrix backup. As a best practice, schedule this backup to occur at time that does not overlap with the normal Sage Intergy database server system state backup.

You have successfully completed configuration of a new backup job for the Heart Centrix server using the remote agent.

CA Arcserve Installation

For sites that do not use Symantec Backup Exec 12.5, or will not be using the remote agent, another backup program may be used to backup the Heart Centrix data instead. Sage recommends that CA Arcserve version r12.5 be installed for this purpose. Installation of this product is described briefly in this section.

CA Arcserver requires a separate purchase and licensing from other Sage Intergy components. Make sure that the customer has purchase the appropriate license and media before proceeding with installation.

Install CA Arcserve on the Heart Centrix server using default options. After a successful installation and reboot has occurred, use the Arcserve Backup wizard to configure the following settings:

- Add backup location - C:\Program Files\Cardiac Science\HeartCentrix
- Add backup location - C:\Program Files\Cardiac Science\HeartCentrixBackup
- Backup type - Full Backup
- Compression option - Compress backup data on the tape
- Backup option - Backup with verification

Schedule a new separate time for the Heart Centrix backup. As a best practice, schedule this backup to occur at time that does not overlap with the other backup operations in the customer environment, including the Sage Intergy database server backup.

For detailed information on the administration and installation of CA Arcserve, refer to the vendor documentation at the following URL:

<https://support.ca.com/cadocs/0/c010891e.pdf>

Next Steps

After successful installation of the Sage Intergy Cardio service and the Heart Centrix server, test the operation of IEHR and its ability to receive data from the ECG or other cardiology hardware. Also, test the operation of the installed backup option and correct any problems with configuration or scheduling. For more information on Cardio service functions, view the Sage Intergy help content for Patient Orders in IEHR.

Appendix H: Physician Portal Service

The Physician Portal service allows Sage Intergy customer sites to receive referrals from other medical providers, and to communicate the status or results of referrals back to medical providers. This service makes use of a web-based connectivity between separately installed software systems. Installation of the Physician Portal service on a Sage Intergy database server also requires the activation of specific Microsoft Windows server roles and other prerequisite installation steps.

This appendix describes only installation procedures performed by Sage technicians. Setup of the Physician Portal service functionality will vary depending on the configuration and needs of each customer site. Refer to the Sage Intergy Physician Portal Administration Guide for detailed instructions on configuration and setup after installation is completed.

Overview	19-2
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Overview

The Physician Portal service may be used by Sage Intergy customers to receive referrals from other medical practices. Messages and data are exchanged between different systems to facilitate automation of the referral process.

Installation of the Physician Portal service for Sage Intergy 7.00 systems requires the use of the Sage Intergy installation media. The Physician Portal service is installed on a Sage Intergy server and not on client workstations. Follow the procedure described in this appendix carefully for successful installation.

As a prerequisite condition, Physician Portal service requires changes to the Microsoft Windows server configuration. At a high level, you will complete the following work actions:

- Sage Intergy placed in maintenance mode.
- Internet Information Services (IIS) is installed.
- Web Services installation procedure completed.
- Physician Portal user interface components activated.

Prerequisite Installation

Before proceeding with installation of Physician Portal application components, you must modify the configuration of Microsoft Windows on the Sage Intergy database server to add Internet Information Services (IIS) as an installed server role. Also, for established customer sites where an existing Sage Intergy server is already installed, it will be necessary to use maintenance mode to block client connectivity to the server during installation. Use the instructions in this section to complete these prerequisite installation steps.

Maintenance Mode

For existing Sage Intergy customer sites, modification of Microsoft Windows configuration may require the server to be rebooted. For this reason, it will be necessary to select a time when users are not connected and other processes are not running. Use the Maintenance Mode function of the Sage Intergy System Administration desktop to block client application connections and prevent active database access from occurring during the installation of the Physician Portal service.

Refer to the Sage Intergy Technical Process Reference in Appendix C for detailed information on placing Sage Intergy systems in maintenance mode and ensuring that all client applications are disconnected.

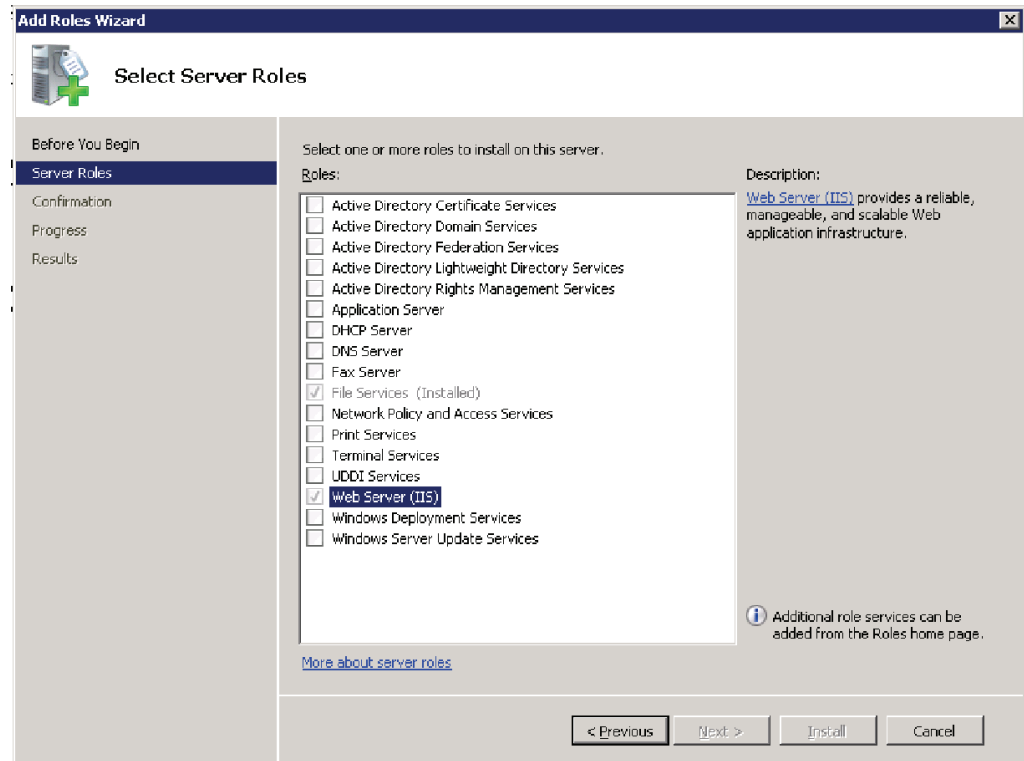
Skip this section if you are installing the Physician Portal service on a new Sage Intergy system that is not yet implemented in a production environment.

IIS Installation

Internet Information Services (IIS) is a required Microsoft Windows operating system component for the Physician Portal service. This server role is not installed by default on Sage Intergrity database servers implemented by Sage technicians and requires separate installation. Note that installation differs for Microsoft Windows Server 2003 and 2008.

Microsoft Windows Server 2008 installation

Log on as the Administrator to the Sage Intergrity database server and open the Server Management console. Start the Add Roles Wizard.



Select the 'Web Server (IIS)' option for installation. When prompted, select the following additional installation options:

- Add role services for ASP.NET.
- Select 'Basic Authentication' security option.

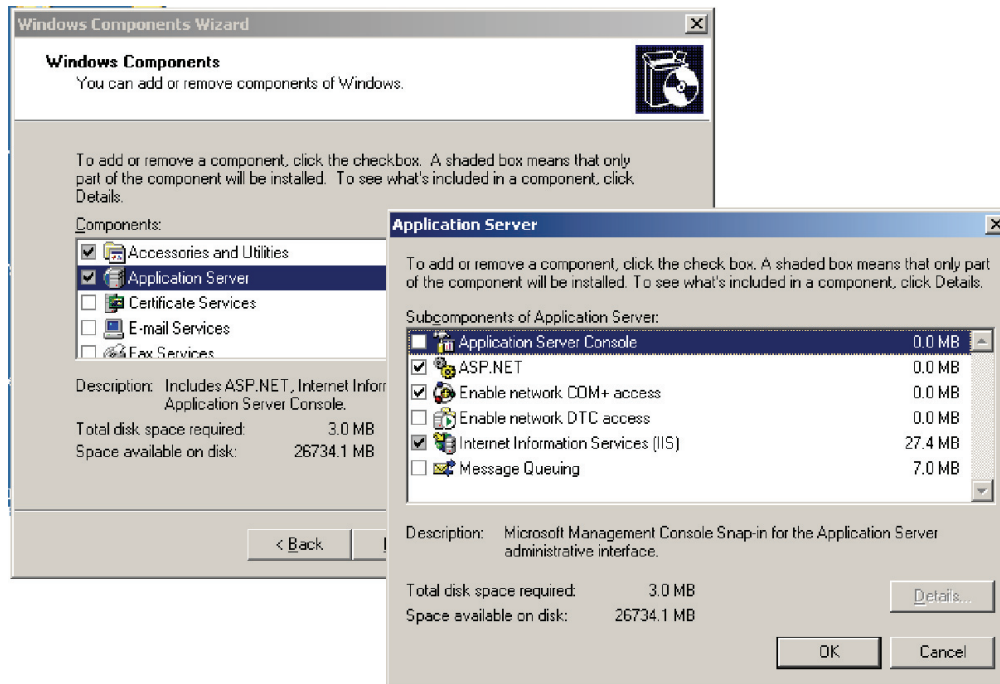
In some cases, it may be necessary to reboot the Sage Intergrity database server after installation of IIS 7.0 has completed.

For detailed information about installation of IIS 7.0 for Microsoft Windows Server 2008, refer to the Microsoft Technet documentation at the following URL:

[http://technet.microsoft.com/en-us/library/cc731179\(Ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc731179(Ws.10).aspx)

Microsoft Windows Server 2003 installation

Log on as the Administrator to the Sage Intergy database server and open the Add or Remove Programs control panel. Click on the Add/Remove Windows Components button to open the Windows Components Wizard.



Select the 'Application Server' option and click the Details button to open the Application Server component selection window. When prompted, select the following additional installation options:

- ASP.NET
- Enable network COM+ access
- Internet Information Services (IIS)

In some cases, it may be necessary to reboot the Sage Intergy database server after installation of IIS has completed.

For detailed information about installation of IIS for Microsoft Windows Server 2003, refer to the Microsoft Technet documentation at the following URL:

[http://technet.microsoft.com/en-us/library/cc737523\(Ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc737523(Ws.10).aspx)

Web Services Component Installation

Installation of web services related to the Physician Portal is the same for both Microsoft Windows Server 2003 and Microsoft Windows Server 2008. All instructions assume that you are logged on as the administrator to the Sage Intergy database server.

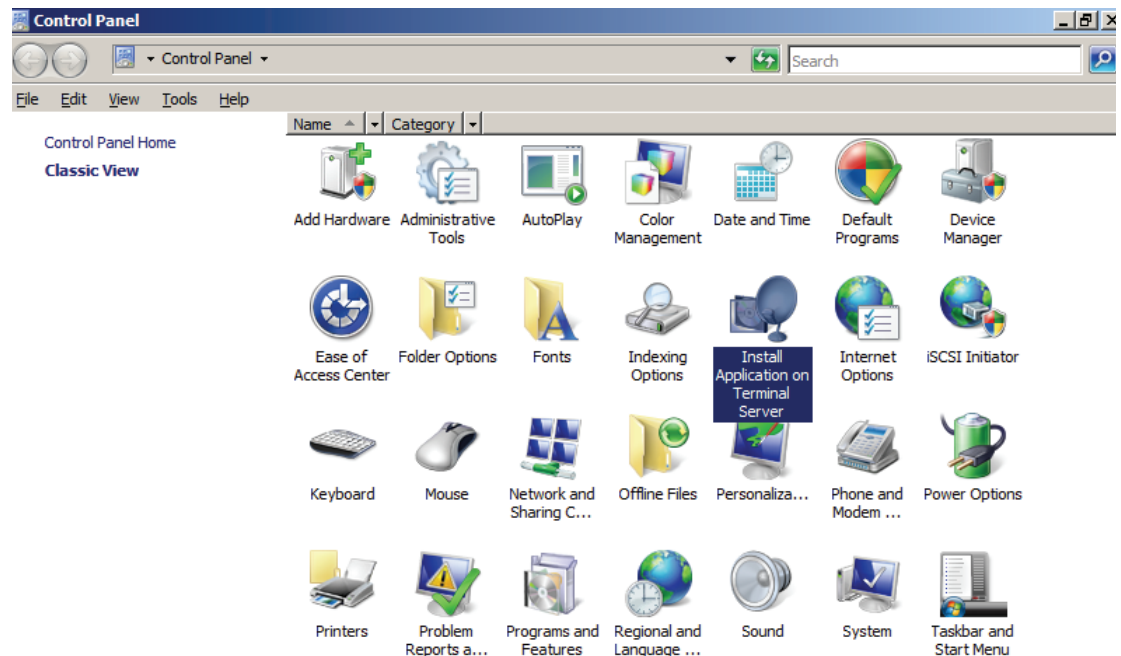
Automatic Installation

The Physician Portal service is one of several installation options on the Sage Intergy 7.00 installation media. However, this option may not be selected during a normal installation and must be performed after installation or upgrade of the database server has been completed successfully.

Use the following numbered steps to complete successful installation of the Physician Portal application components:

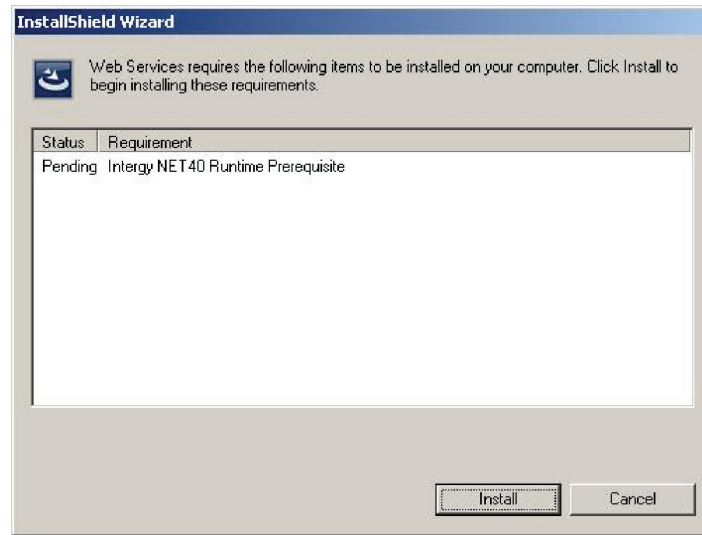
1. Insert the Sage Intergy Installation media disk into the server. You may also copy the contents of the DVD to a shared folder for installation. Using Windows Explorer, browse to the 'PhysicianPortal' directory at the root of the DVD and run the default setup executable with the file name 'setup.exe'.

If you are installing on a Sage Intergy database server that is also a terminal server, you must use Install Mode to install web services. Open the Install Application on Terminal Server control panel and use this dialogue to run the default setup executable, instead of clicking on the file manually.

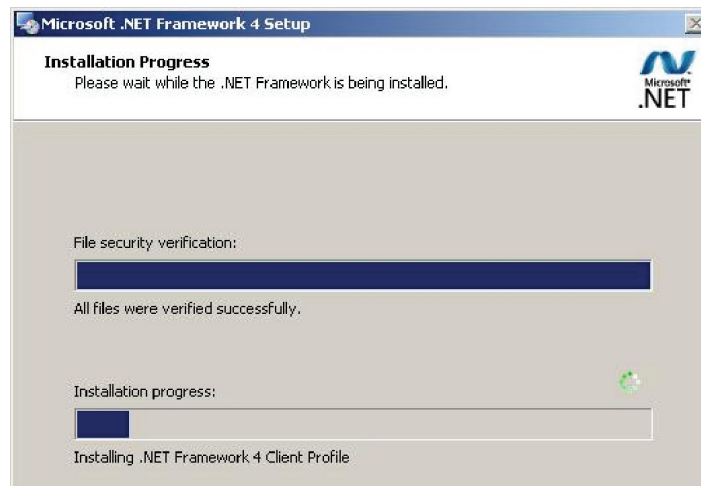


Refer to Chapter 9 for detailed information on the installation of applications for Terminal Services client connectivity.

2. The InstallShield Wizard prerequisite installation window is displayed. Click on the Install button to proceed with installation of .NET components.



3. A number of windows will be displayed to indicate the status of .NET 4.0 and ASP.NET component installation. No input is required during this step.



4. After installation of .NET components is completed, the Web Services InstallShield Wizard prompt is displayed. Click Next to proceed with installation.

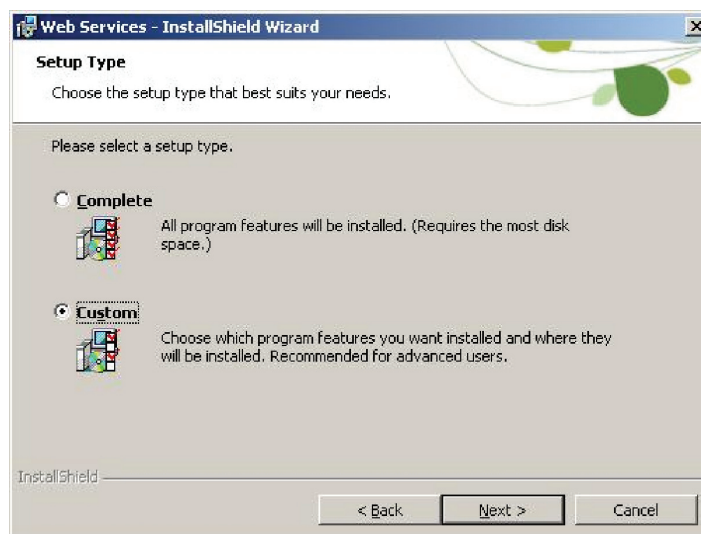


5. A license agreement prompt is displayed. Select the appropriate radio button to accept the license agreement and then click on the Next button to proceed to the next step.
6. The Customer Information prompt is displayed.

The image shows the 'Web Services - InstallShield Wizard' window at the 'Customer Information' step. The title bar reads 'Web Services - InstallShield Wizard'. The main text says 'Customer Information' and 'Please enter your information.' There are two text input fields: 'User Name:' with 'Sage User' entered, and 'Organization:' with 'Company Name' entered. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a black border.

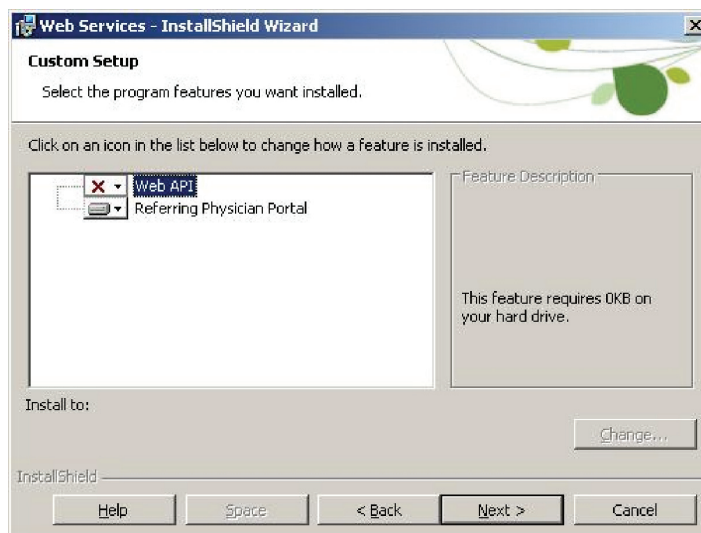
Enter the appropriate identifying information for the customer site and then click on the Next button to proceed to the next step.

7. The Setup Type prompt is displayed.



Select the 'Custom' radio button to customize installation options, and then click on the Next button to proceed to the next step.

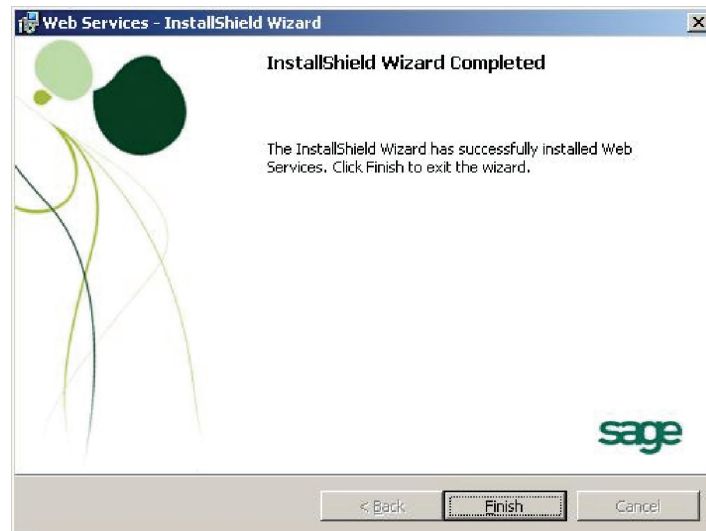
8. The Custom Setup selection window is displayed.



A number of different application features may be displayed in the list pane. Select only the 'Referring Physician Portal' application feature. Click on all other displayed application components and select the menu option to exclude them from installation. Click on the Next button to proceed to the next step.

9. A summary prompt is displayed. Click on the Install button to proceed with installation of the Physician Portal service.
10. A number of windows will be displayed to indicate the status of component installation. No input is required during this step

- 11.** The InstallShield Completion window is displayed. Click on the Finish button to complete installation.



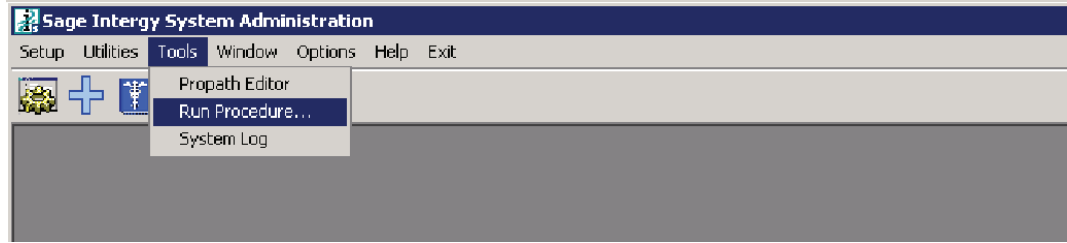
You have successfully completed installation of Web Services application components. Proceed to the next section to complete activation of Physician Portal service user interface features.

User Interface Activation

After Physician Portal service components are installed, Physician Portal user interface components in the Sage Intergy desktop and administrative tools must be activated by running a Sage Intergy procedure file.

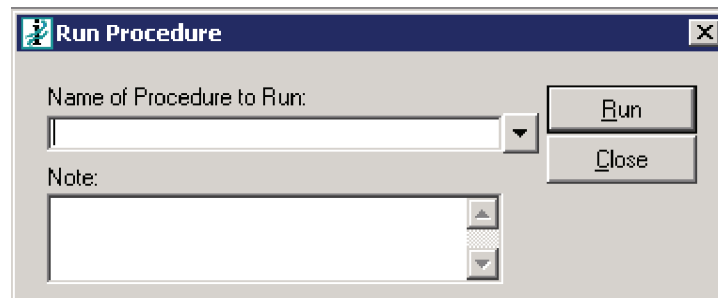
To run this Procedure file, open the Intergy desktop folder or program group and then open the System Administration item. Log on using the 'sysadm' account and the appropriate password.

The System Administration desktop is displayed.



Click on the Tools menu and select the Run Procedure menu item.

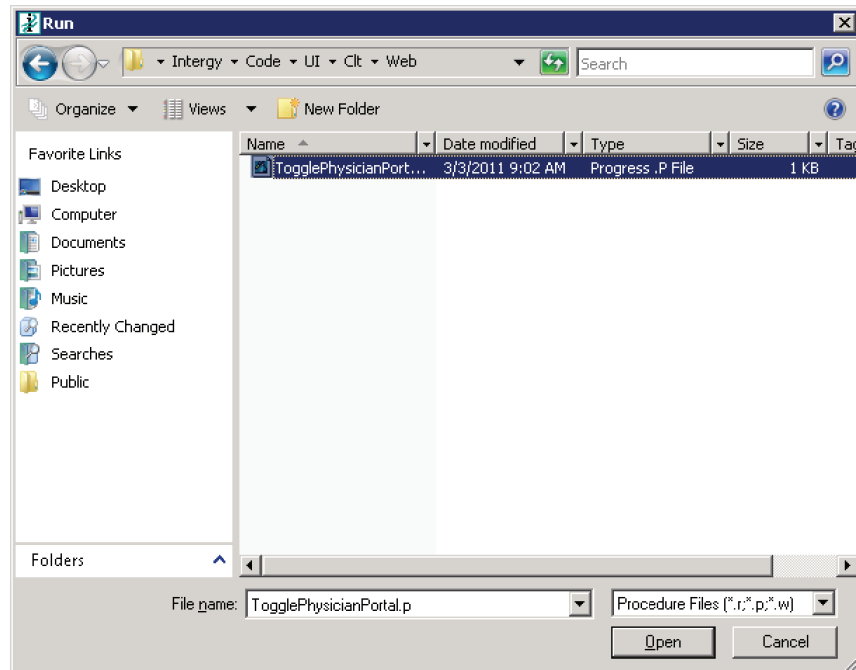
The Run Procedure dialogue box is displayed.



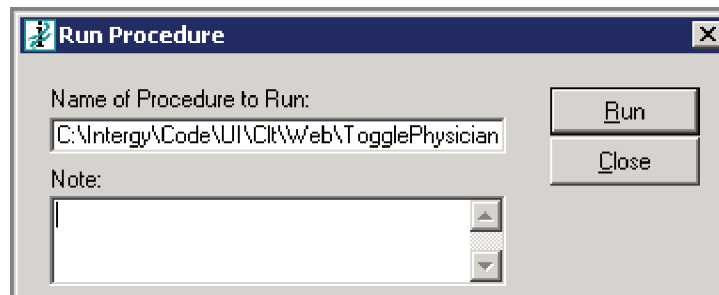
Click on the arrow button on the right side of the Name text field. A file browsing window will be displayed. Browse to the following directory:

C:\Intergy\Code\UI\Clt\Support\Web

Select the file TogglePhysicianPortal.r as shown below. Make sure that you select the “Procedure File” item in the Files of Type drop-down list.

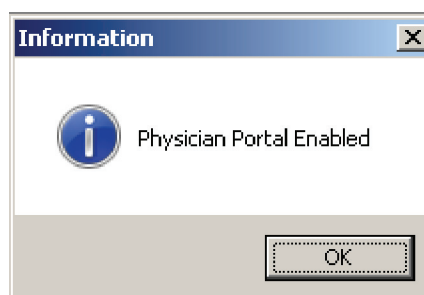


Click on Open to return to the Run Procedure dialogue box.



Note that the full path and name of this procedure file are now listed in the Name text field. Click on the Run button to execute this file.

A series of prompt windows will be displayed to indicate that the procedure is making changes to the database server. Click on the OK button to close each prompt window, to acknowledge each separate change action. Exit the System Administration desktop when this process is complete.



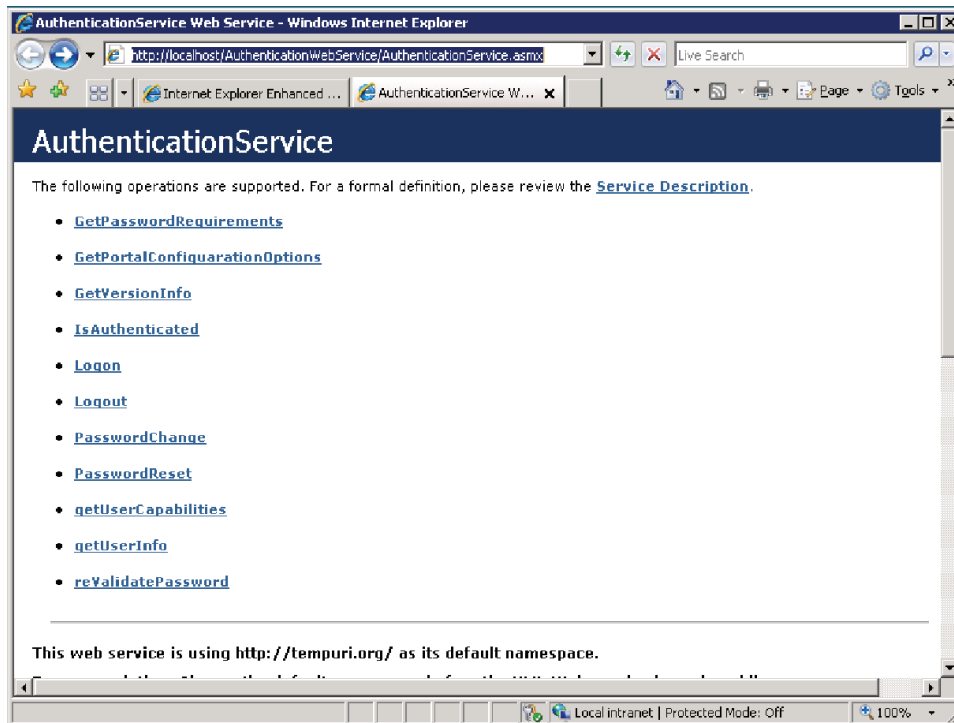
You have successfully completed activation of Physician Portal user interface components.

Verify Installation

To verify correct operation of the Physician Portal service, open a web browser on the Sage Intergy database server and browse to the following URL:

<http://localhost/AuthenticationWebService/AuthenticationService.asmx>

When correctly installed, the Physician Portal service authentication options page will be displayed.



As a best practice, also check connectivity to the web page from the Internet. From a computing resource located outside of the customer site network, connect to the Internet-facing IP address that has been configured to forward traffic to the Sage Intergy server.

In some customer computing environments, port 443 may not already be configured for secure web connections that are initiated from the public Internet to connect to the Sage Intergy database server. As part of the provisioning process Sage technicians must also configure the customer's router or other WAN hardware to perform port forwarding, so that secure web connections to port 443 are directed to the Sage Intergy database server. Refer to the vendor instructions for the specific hardware installed at the customer site, or engage the customer's technical support personnel to complete this task.

As a best practice, do not connect the Sage Intergy database server directly to the public Internet without a firewall or other network routing layer.

Hosted Server Provisioning

Hosted server components for the Sage Intergy Physician Portal must be provisioned at some point during installation. Typically, this procedure may occur after installation has been verified, but may be performed at any point before, during or after server installation. For Sage Intergy 7.00, technicians should gather following information before proceeding:

- Internet-facing IP address or hostname.
- The URL suffix to be used to identify the unique portal connection.
- The IP address of the Sage server to be used for provisioning tasks.

Use the following procedure to complete hosted server provisioning.

1. Log on to a workstation or server on the Sage corporate network. You may use the Sage VPN to make this connection.
2. From the Windows desktop, use the Remote Desktop client to open a connection to the IP address of the Sage server to be used for provisioning tasks. If you do not already have this information, contact the Sage R&D Physician Portal development team for the current name and address of the server used for this purpose. Use this system for Sage Intergy 7.00 setup only and for no other version. When prompted, use 'Administrator' as the logon name and 'sage@123' as the password, each without quotes.
3. The Sage Physician Portal Administration Windows desktop is displayed. Note that several application shortcuts are available on the desktop. Double-click on the 'OnBoarding' application shortcut to proceed to the next step.
4. The Physician Portal Client Definition Tool window is displayed.

SiteName	Host	URLName
Seagate Medical	gnval-ffhamon	FredDevelopment
Seagate Medical	gnval-jrauzin	JoelDevelopment
Medical Imaging NW	gnval-jrauzin	MedicalImagingNW
QA Radiology	qaRISPortal	QARadiology
Seagate Medical	rpIntergyServer	SeagateMedical
Somerset Radiology	gnval-jrauzin	Somerset
Testify Radiology	rpIntergyServer	TestifyRadiology

Site Name: Seagate Medical Create New Site

Host: gnval-ffhamon Update Selected Site

URL Extension: FredDevelopment Delete Selected Site

Note that a list of existing Physician Portal connections is already displayed. Click on the Create New Site button to proceed to the next step.

5. Note that the text fields at the bottom of the window are now available for editing, and that the button labels have changed.

SiteName	Host	URLName
Seagate Medical	gnval-ffhamon	FredDevelopment
Seagate Medical	gnval-jrauzin	JoelDevelopment
Medical Imaging NW	gnval-jrauzin	MedicalImagingNW
QA Radiology	qaRISPortal	QARadiology
Seagate Medical	rpIntergyServer	SeagateMedical
Somerset Radiology	gnval-jrauzin	Somerset
Testify Radiology	rpIntergyServer	TestifyRadiology

Site Name: Create

Host: Cancel

URL Extension:

Enter the following values for each text field:

- **Site Name** - Enter the full name of the customer for which Physician Portal is being created. This name should be used to differentiate between separate customer sites or practices.
- **Host** - The numeric IP address or fully-qualified domain name of the customer site should be entered in this field. This is the Internet-facing address for which secure web traffic on port 443 is forwarded to the Sage Intergy database server.
- **URL Extension** - The suffix used to identify the web content for each customer site. This text string must be unique and may be used only to identify one customer website. Spaces and non-alphanumeric characters may not be used in this field.

Click on the Create button to save these settings and establish a new Physician Portal provisioned site.

6. If necessary use the Update and Delete buttons to make corrections or remove erroneous site settings. Do not accidentally delete other customer site settings.
7. Close the Physician Portal Client Definition Tool and log out of the server.

You have successfully completed provisioning of the hosted Physician Portal website.

Next Steps

Proceed with setup of practice-specific configuration for the Physician Portal service, as described in the Sage Intergy Physician Portal Administration Guide. Note that different practices may have different setup requirements depending on the type of referrals that are submitted and the specialties that are involved.